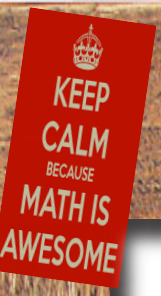

McCarthy Math Academy
presents

How to Pass the Math FSA Grade 4:

The Complete Guide

Sarah McCarthy

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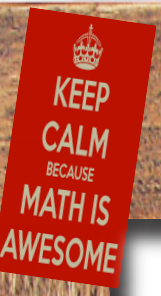


Lesson 1

MAFS.4.OA.1.1

Topic:

Multiplicative Comparisons

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.1

Interpret a multiplication equation as a comparison.
Represent verbal statements of multiplicative comparisons as multiplication equations.

Let Me Teach Ya! (Video Lesson)

Example 1:
On Monday, Eric earned $4. On Tuesday, Eric earned 3 times as much money. Write a multiplication equation that represents how much money Eric earned on Tuesday.

Item Type: Equation Editor

Example 2:
Jill has 8 times as many apples as Jack. Jack has 6 apples. Create a multiplication equation that represents this situation.

6
8
?
+
-
x
÷

Item Type: GRID

Example 3:

Trisha earns $3 in one week doing chores.

Match the situation to the correct earning.

	$9	$12	$15
Joey earns 4 times as much as Trisha			
Ben earns 3 times as much as Trisha			
Lilly earns 5 times as much as Trisha.			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.1

Interpret a multiplication equation as a comparison.
Represent verbal statements of multiplicative comparisons as multiplication equations.

Let Me Teach Ya! (Video Lesson)

Example 4:
Which statement represents 54 = 6 x 9?

a. 54 times as many as 6 is 9
b. 54 is 6 times as many as 9
c. 9 is 6 times as many as 4
d. 9 times as many as 54 is 6

Item Type: Multiple Choice

Example 5:
Ahmad has 3 times as many pieces of candy as Henry. Henry has 7 pieces of candy. Select all the equations that show how many pieces of candy Ahmad has.

a. 3 x 7 = ?
b. 3 + 7 = ?
c. 7 + 3 = ?
d. 3(7) = ?
e. 3(3 +7) = ?

Item Type: Multi-Select

Example 6:
Justin, Chris, and Lance are completing homework problems. Justin completes 4 homework problems. Chris completes 3 times as many homework problems as Justin. Lance completes 2 times as many problems as Chris. Who completes the most homework problems? Explain your reasoning.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.1

Interpret a multiplication equation as a comparison.
Represent verbal statements of multiplicative comparisons as multiplication equations.

Practice Makes Improvement – Level 1

Example 1:
On Monday, Eric earned $8. On Tuesday, Eric earned 9 times as much money. Write a multiplication equation that represents how much money Eric earned on Tuesday.

Item Type: Equation Editor

Example 2:
Jill has 7 times as many apples as Jack. Jack has 4 apples. Create a multiplication equation that represents this situation.

4
7
?
+
-
x
÷

Item Type: GRID

Example 3:

Trisha earns $4 in one week doing chores.

Match the situation to the correct earning.

	$8	$16	$20
Joey earns 4 times as much as Trisha			
Ben earns 5 times as much as Trisha			
Lilly earns 2 times as much as Trisha.			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.1

Interpret a multiplication equation as a comparison.
Represent verbal statements of multiplicative comparisons as multiplication equations.

Practice Makes Improvement – Level 1

Example 4:
Which statement represents 36 = 12 x 3?

a. 36 times as many as 12 is 3
b. 3 is 12 times as many as 36
c. 36 times as many as 12 is 3
d. 36 is 12 times as many as 3

Item Type: Multiple Choice

Example 5:
Ahmad has 7 times as many pieces of candy as Henry. Henry has 13 pieces of candy. Select all the equations that show how many pieces of candy Ahmad has.

a. 7 (13) = ?
b. 7 x 13 = ?
c. 13 + 7 = ?
d. 7 + 13 = ?
e. 13 (7 + 7) = ?

Item Type: Multi-Select

Example 6:
Jake, Izzy, and Cubby are completing homework problems. Jake completes 5 homework problems. Cubby completes 4 times as many homework problems as Jake. Izzy completes 3 times as many problems as Cubby. Who completes the most homework problems? Explain your reasoning.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.1

Interpret a multiplication equation as a comparison.
Represent verbal statements of multiplicative comparisons as multiplication equations.

Practice Makes Improvement – Level 2

Example 1:
Frankie has 12 gel pens. His sister, Arianna, has 4 times as many gel pens. Write a multiplication equation that represents how many gel pens Arianna has.

Item Type: Equation Editor

Example 2:
Katherine earned $5 weeding the garden. Kai earned twice as much as Katherine. Create a multiplication equation that represents this situation.

5
2
20
?
+
-
x
÷

Item Type: GRID

Example 3:

Ginny reads 8 pages of her book.

Match the situation to the correct number of pages read.

	56 pages	72 pages	128 pages	64 pages
Christin reads 8 times as much as Ginny.				
Johnny reads 9 times as much as Ginny.				
Ellie reads twice as much as Christin.				

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.1

Interpret a multiplication equation as a comparison.
Represent verbal statements of multiplicative comparisons as multiplication equations.

Practice Makes Improvement – Level 2

Example 4:

Which statement represents 108 = 12 x ☐ ?

a. 108 times 12 is an unknown number
b. 108 times an unknown number is 12
c. 108 is 12 times an unknown number
d. 108 is 12 divided by an unknown number

Item Type: Multiple Choice

Example 5:

Justin designs 16 cars. Jessica designs 16 times as many cars. Select all the equations that show how many cars Jessica has designed.

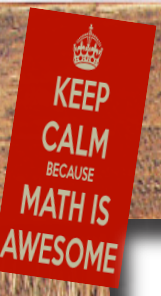
a. 16 + 16 + 16 + 16 = ?
b. $\frac{16}{4}$ = ?
c. 16 – 16 = ?
d. 16 x 16 = ?
e. 16 (16) = ?
f. ? ÷ 16 = 16
g. ? = $\frac{16}{16}$

Item Type: Multi-Select

Example 6:

Fourth graders play for 5 minutes at recess. Third graders play for twice as long as the fourth grades. Second graders play for 3 times as long as fourth graders. If kindergarteners play for twice as long as second graders, how long do they play for? Explain your reasoning.

Item Type: Open Response



Lesson 2

MAFS.4.OA.1.2

Topic:

Multiplicative Comparisons (Word Problems)

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.2

Multiply or divide to solve word problems involving multiplication comparison.

Let Me Teach Ya! (Video Lesson)

Example 1:

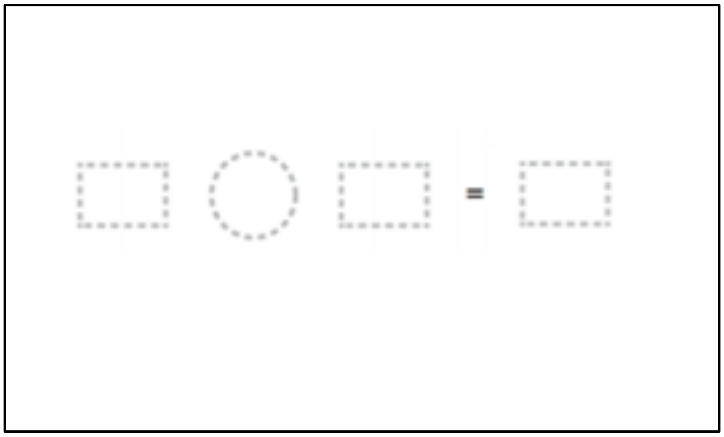
Cassandra has 35 pencils. Margaret has *p* pencils. If Cassandra has 5 times as many pencils as Margaret, write an equation that shows how many pencils Margaret has.

Item Type: *Equation Editor*

Example 2:

Kyle has 16 math problems for homework. Camilla has *m* math problems for homework. If Kyle has twice as many math problems, create an equation that shows how many math homework problems Camilla has.

16
2
m
+
-
x
÷



Item Type: *GRID*

How to Pass the Math FSA: 4th Grade

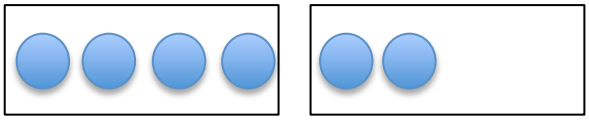
Focus: MAFS.4.OA.1.2

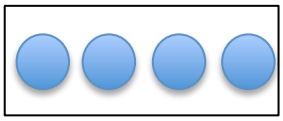
Multiply or divide to solve word problems involving multiplication comparison.

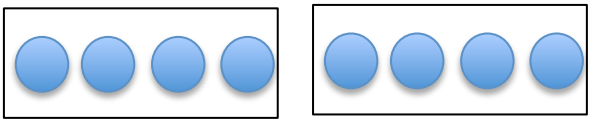
Let Me Teach Ya! (Video Lesson)

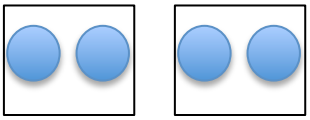
Example 3:

Walter has 4 video games. Josiah has twice as many video games as Walter. Which picture represents this situation?

a. 

b. 

c. 

d. 

Item Type: *Multiple Choice*

Example 4:

Peter has 18 gold coins. Jake has 4 times as many gold coins. How many gold coins does Jake have?

Item Type: *Equation Editor*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.2

Multiply or divide to solve word problems involving multiplication comparison.

Practice Makes Improvement – Level 1

Example 1:

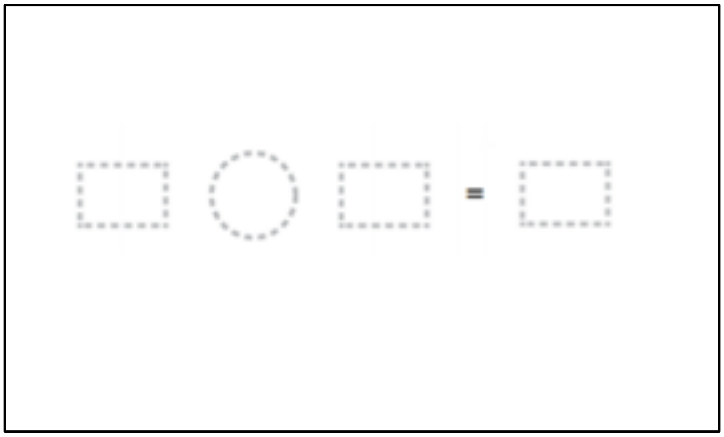
Cassandra has 42 pencils. Margaret has *p* pencils. If Cassandra has 7 times as many pencils as Margaret, write an equation that shows how many pencils Margaret has.

Item Type: Equation Editor

Example 2:

Kyle has 28 math problems for homework. Camilla has *m* math problems for homework. If Kyle has four times as many math problems, create an equation that shows how many math homework problems Camilla has.

28
4
m
+
-
x
÷



Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.2

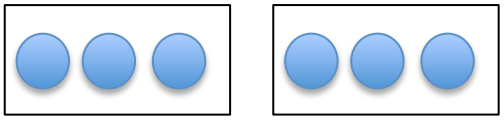
Multiply or divide to solve word problems involving multiplication comparison.

Practice Makes Improvement – Level 1

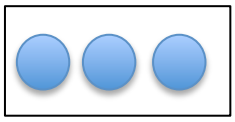
Example 3:

Walter has 3 video games. Josiah has three times as many video games as Walter. Which picture represents this situation?

a.



b.



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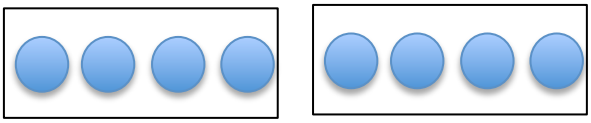
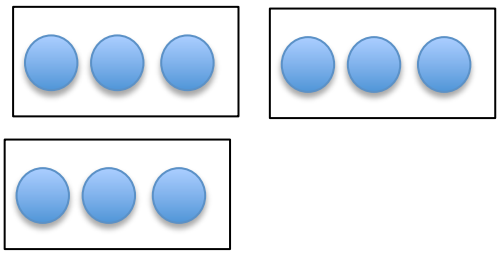


d.



Item Type: *Multiple Choice*

Example 4:

Peter has 16 gold coins. Jake has 3 times as many gold coins. How many gold coins does Jake have?

Item Type: *Equation Editor*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.2

Multiply or divide to solve word problems involving multiplication comparison.

Practice Makes Improvement – Level 2

Example 1:

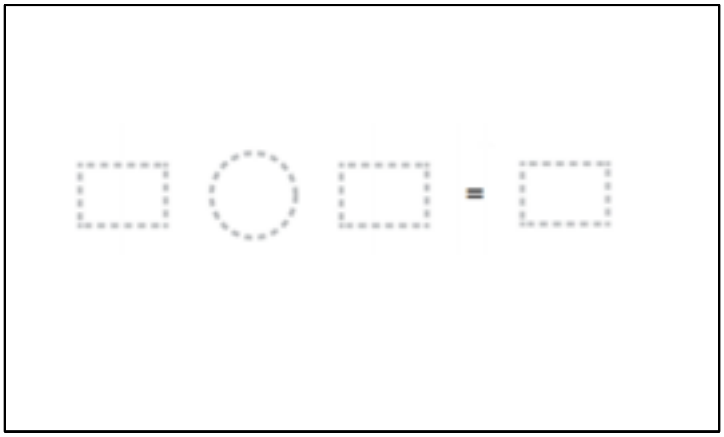
Michael has *d* dollars. Sarah has $54. If Sarah has 6 times as much money as Michael, write an equation that shows how much money Michael has .

Item Type: Equation Editor

Example 2:

Jillian is making dinner for 60 people. Phillip is making dinner for *p* people. If Jillian is making dinner for twelve times as many people, create an equation that shows how many people Phillip is making dinner for.

60
10
12
p
d
+
-
x
÷



Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.2

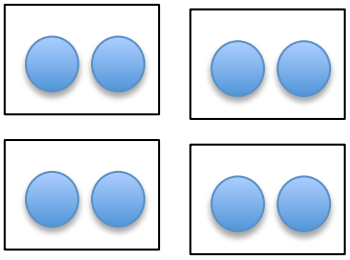
Multiply or divide to solve word problems involving multiplication comparison.

Practice Makes Improvement – Level 2

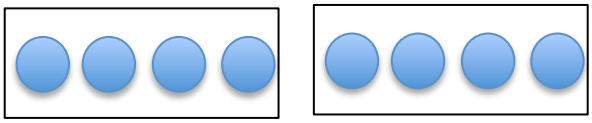
Example 3:

Wan reads 2 books. Jaysean reads four times as many books as Wan over the summer. Which picture represents this situation?

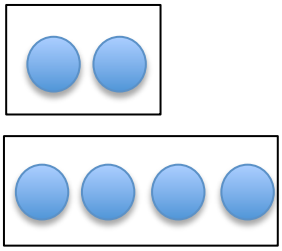
a.



c.



b.



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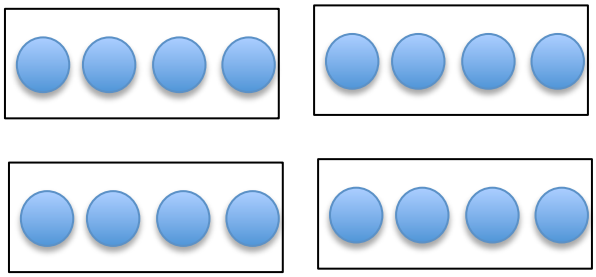
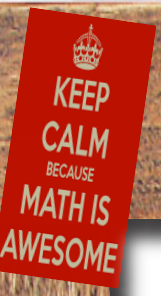


Item Type: *Multiple Choice*

Example 4:

Mrs. Steele's class brings in 18 cans of food for the food drive. Ms. McCarthy's class brings in twice as many cans of food. How many cans of food does Ms. McCarthy's class bring in?

Item Type: *Equation Editor*



Lesson 3

MAFS.4.OA.1.3

Topic:

Multi-Step Word Problems

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.3

Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Let Me Teach Ya! (Video Lesson)

Example 1:

James wants to buy the same number of scarves for 4 of his friends. He has $75 dollars, and each scarf costs $6. What is the largest number of scarves that James buys for each of his friend?

Item Type: Equation Editor

Example 2:

Soo bought 3 pillows. Each pillow costs $14. She also bought 2 picture frames, each costs $8.

Part A: Which equation represents the situation?

a. $(3 + 14) + (2 + 8) = T$
b. $(3 \times 14) + (2 \times 8) = T$
c. $(3 \times 2) + (14 \times 8) = T$
d. $(3 + 2) + (14 + 8) = T$

Part B: What was the total amount, T, that Soo spent?

Item Type: Multiple Choice/ Equation Editor

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.3

Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Let Me Teach Ya! (Video Lesson)

Example 3:

Paula purchased 4 DVDs and 5 CDs and spent between $100 and $120. Each DVD costs the same amount. The price of a CD is $9. Select all amounts that could be the price of a DVD.

a. $13
b. $15
c. $17
d. $19
e. $21

Item Type: Multi-Select

Example 4:

Ariel has $62. She is shopping for shirts that cost $12 each. She writes the following equation to model the situation.

62 ÷ 12 = 5 r 2

Part A: What does the number 5 represent?

Part B: What does the number 2 represent?

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.3

Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Practice Makes Improvement – Level 1

Example 1:

James wants to buy the same number of scarves for 3 of his friends. He has $64 dollars, and each scarf costs $21. What is the largest number of scarves that James buys for each of his friend?

Item Type: Equation Editor

Example 2:

Soo bought 4 pillows. Each pillow costs $13. She also bought 6 picture frames, each costs $7.

Part A: Which equation represents the situation?

a. (4 x 6) + (13 x 7) = *T*
b. (4 x 6) x (13 x 7) = *T*
c. (4 + 13) + (6 + 7) = *T*
d. (4 x 13) + (6 x 7) = *T*

Part B: What was the total amount, *T*, that Soo spent?

Item Type: Multiple Choice/ Equation Editor

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.3

Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Practice Makes Improvement – Level 1

Example 3:

Paula purchased 3 DVDs and 7 CDs and spent between $90 and $100. Each DVD costs the same amount. The price of a CD is $10. Select all amounts that could be the price of a DVD.

a. $6
b. $7
c. $8
d. $9
e. $10

Item Type: Multi-Select

Example 4:

Ariel has $76. She is shopping for shirts that cost $9 each. She writes the following equation to model the situation.

76 ÷ 9 = 8 r 4

Part A: What does the number 8 represent?

Part B: What does the number 4 represent?

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.3

Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Practice Makes Improvement – Level 2

Example 1:

Harry wants to ride his bicycle the same of miles every day. His goal is to ride 46 miles. If he rides 4 miles each morning and 3 miles each night, how many days will it take him to reach 46 miles?

Item Type: Equation Editor

Example 2:

Tracey decorated 5 windows in her house. Each window costs $20 to decorate. She also purchased a new rug for $45 and used a $5 off coupon for her total purchase.

Part A: Which equation represents the situation?

a. (5 x 20) + (45 x 5) = *T*
b. (5 + 200 + 45 – 5) = *T*
c. (5 x 20) + 45 – 5 = *T*
d. (5 + 20) + (45 x 5) = *T*

Part B: What was the total amount, *T*, that Tracey spent?

Item Type: Multiple Choice/ Equation Editor

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1.3

Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Practice Makes Improvement – Level 2

Example 3:

Simon purchased four shirts and two pairs of pants at the clothing store. Each shirt costs $8 and each pair of pants are the same price. The total amount that Simon spent was between $52 - $58. Select all amounts that could be the price of a pair of pants.

a. $7
b. $9
c. $11
d. $13
e. $15

Item Type: Multi-Select

Example 4:

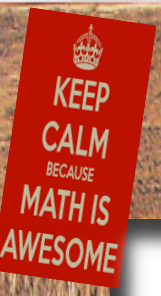
Samantha wants to run 45 miles. She wants to run 7 miles each day. She writes the following equation to model the situation.

45 ÷ 7 = 6 r 3

Part A: What does the number 6 represent?

Part B: What does the number 3 represent?

Item Type: Open Response



Lesson 4

MAFS.4.OA.1a
MAFS.4.OA.1b

Topics:

True and False Equations,

Unknown Numbers in Equations

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1a and MAFS.4.OA.1b

Determine whether an equation is true or false by using comparative relational thinking (a). Determine the unknown whole number in an equation relating four whole numbers using comparative relational thinking(b).

Let Me Teach Ya! (Video Lesson)

Example 1:
An equation is shown.

4 x 12 = n x 24

What is the value of the unknown number?

Item Type: Equation Editor

Example 2:
Determine whether each equation is *true* or *false* by dragging it to the correct place.

75 + 6 = 71 + 10	36 ÷ 6 = 24 ÷ 4
362 – 10 = 372 - 20	5 x 12 = 10 x 5

TRUE	FALSE

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1a and MAFS.4.OA.1b

Determine whether an equation is true or false by using comparative relational thinking (a). Determine the unknown whole number in an equation relating four whole numbers using comparative relational thinking(b).

Let Me Teach Ya! (Video Lesson)

Example 3:
An equation is shown.

$153 - 23 = 157 - n$

What is the value of n?

a. 23
b. 27
c. 133
d. 137

Item Type: Multiple Choice

Example 4:
Select all of the equations that are true.

a. $84 + 4 = 85 + 3$
b. $84 + 3 = 85 + 4$
c. $84 + 7 = 85 + 8$
d. $84 + 12 = 85 + 10$
e. $84 + 13 = 85 + 12$

Item Type: Multi-Select

Example 5:
An equation is shown.

$47 + 20 = 37 + 40$

Determine if the equation is true or false without adding. Explain your reasoning.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1a and MAFS.4.OA.1b

Determine whether an equation is true or false by using comparative relational thinking (a). Determine the unknown whole number in an equation relating four whole numbers using comparative relational thinking(b).

Practice Makes Improvement – Level 1

Example 1:
An equation is shown.

6 x 8 = n x 16

What is the value of the unknown number?

Item Type: Equation Editor

Example 2:
Determine whether each equation is *true* or *false* by dragging it to the correct place.

36 + 20 = 56 + 10	10 ÷ 2 = 20 ÷ 5
740 – 40 = 750 - 50	2 x 24 = 4 x 12

TRUE	FALSE

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1a and MAFS.4.OA.1b

Determine whether an equation is true or false by using comparative relational thinking (a). Determine the unknown whole number in an equation relating four whole numbers using comparative relational thinking(b).

Practice Makes Improvement – Level 1

Example 3:
An equation is shown.

$365 - 55 = 366 - n$

What is the value of n?

a. 54
b. 55
c. 56
d. 57

Item Type: Multiple Choice

Example 4:
Select all of the equations that are true.

a. $125 + 10 = 126 + 11$
b. $125 + 10 = 126 + 9$
c. $125 + 10 = 124 + 11$
d. $125 + 10 = 123 + 13$
e. $125 + 10 = 123 + 14$

Item Type: Multi-Select

Example 5:
An equation is shown.

$35 + 35 = 45 + 25$

Determine if the equation is true or false without adding. Explain your reasoning.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1a and MAFS.4.OA.1b

Determine whether an equation is true or false by using comparative relational thinking (a). Determine the unknown whole number in an equation relating four whole numbers using comparative relational thinking(b).

Practice Makes Improvement – Level 2

Example 1:
An equation is shown.

8 x n = 4 x 6

What is the value of the unknown number?

Item Type: Equation Editor

Example 2:
Determine whether each equation is *true* or *false* by dragging it to the correct place.

75 + 25 = 74 + 24	12 ÷ 4 = 6 ÷ 2
850 – 50 = 750 + 50	16 x 2 = 8 x 3

TRUE	FALSE

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.1a and MAFS.4.OA.1b

Determine whether an equation is true or false by using comparative relational thinking (a). Determine the unknown whole number in an equation relating four whole numbers using comparative relational thinking(b).

Practice Makes Improvement – Level 2

Example 3:
An equation is shown.

n - 11 = 125 – *15*

What is the value of *n*?

a. 120
b. 121
c. 124
d. 126

Item Type: Multiple Choice

Example 4:
Select all of the equations that are true.

a. 2 x 6 = 4 x 3
b. 2 x 5 = 4 x 10
c. 2 x 6 = 1 x 12
d. 2 x 8 = 4 x 4
e. 2 x 10 = 5 x 5

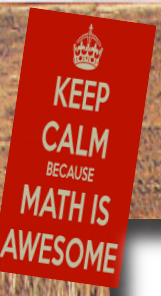
Item Type: Multi-Select

Example 5:
An equation is shown.

32 – 12 = 22 + 12

Determine if the equation is true or false without adding or subtracting. Explain your reasoning.

Item Type: Open Response



Lesson 5

MAFS.4.OA.2.4

Topic:

Factors, Multiples, Prime and Composite

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.2.4

Investigate factors, multiples, and prime/composite numbers.

Let Me Teach Ya! (Video Lesson)

Example 1:

List the first 5 multiples of the number 5.

Item Type: Equation Editor

Example 2:

What are the first 4 multiples of 8?

a. 1, 2, 4, 8
b. 2, 4, 8, 16
c. 8, 16, 24, 32
d. 8, 16, 32, 64

Item Type: Multiple Choice

Example 3:

Record whether each number in the boxes below belong in the "Factors of 10" or "Multiples of 10" category. (Note: Some numbers may belong in both categories)

1	30	5	50
20	2	40	10

Factors of 10	Multiples of 10

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.2.4

Investigate factors, multiples, and prime/composite numbers.

Let Me Teach Ya! (Video Lesson)

Example 4:

Determine whether each number is prime or composite.

	Prime	Composite
22		
5		
16		
27		

Item Type: Matching Item

Example 5:

Which factors do 24 and 32 have in common?

a. 1
b. 2
c. 3
d. 4
e. 6
f. 7
g. 8
h. 16

Item Type: Multi-Select

Example 6:

Mrs. Fluffernutter is arranging her students' desks to take the FSA Math test. She has 18 desks and she wants to arrange them in a rectangular array. Complete the table to show four ways she can arrange the chairs.

	Number of Rows	Number of Desks in Each Row
Arrangement 1		
Arrangement 2		
Arrangement 3		
Arrangement 4		

Item Type: Table Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.2.4

Investigate factors, multiples, and prime/composite numbers.

Practice Makes Improvement – Level 1

Example 1:

List the first 5 multiples of the number 7.

Item Type: Equation Editor

Example 2:

What are the first 4 multiples of 6?

a. 1, 2, 3, 6
b. 2, 4, 6, 8
c. 6, 12, 24, 48
d. 6, 12, 18, 24

Item Type: Multiple Choice

Example 3:

Record whether each number in the boxes below belong in the "Factors of 8" or "Multiples of 8" category. (Note: Some numbers may belong in both categories)

1	16	48	4
2	64	8	24

Factors of 8	Multiples of 8

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.2.4

Investigate factors, multiples, and prime/composite numbers.

Practice Makes Improvement – Level 1

Example 4:

Determine whether each number is prime or composite.

	Prime	Composite
43		
42		
45		
47		

Item Type: Matching Item

Example 5:

Which factors do 16 and 20 have in common?

a. 1
b. 2
c. 4
d. 5
e. 8
f. 10
g. 16
h. 20

Item Type: Multi-Select

Example 6:

Mrs. Fluffernutter is arranging her students' desks to take the FSA Math test. She has 30 desks and she wants to arrange them in a rectangular array. Complete the table to show four ways she can arrange the chairs.

	Number of Rows	Number of Desks in Each Row
Arrangement 1		
Arrangement 2		
Arrangement 3		
Arrangement 4		

Item Type: Table Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.2.4

Investigate factors, multiples, and prime/composite numbers.

Practice Makes Improvement – Level 2

Example 1:

List the first 6 multiples of the number 4.

Item Type: Equation Editor

Example 2:

What are the first 5 multiples of 9?

a. 9, 18, 36, 45, 54
b. 9, 18, 27, 45, 54
c. 9, 18, 27, 36, 54
d. 9, 18, 27, 36, 45

Item Type: Multiple Choice

Example 3:

Record whether each number in the boxes below belong in the "Factors of 12" or "Multiples of 12" category. (Note: Some numbers may belong in both categories)

12	2	48	4
1	3	6	24

Factors of 12	Multiples of 12

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.2.4

Investigate factors, multiples, and prime/composite numbers.

Practice Makes Improvement – Level 2

Example 4:

Determine whether each number is prime or composite.

	Prime	Composite
54		
55		
56		
57		

Item Type: Matching Item

Example 5:

Which factors do 48 and 56 have in common?

a. 1
b. 2
c. 4
d. 5
e. 8
f. 10
g. 16
h. 28

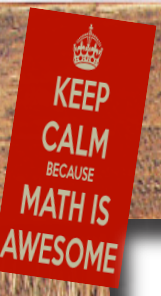
Item Type: Multi-Select

Example 6:

Richard is arranging his pennies. He has 54 pennies and wants to arrange them in a rectangular array. Complete the table to show four ways he can arrange the pennies.

	Number of Rows	Number of Desks in Each Row
Arrangement 1		
Arrangement 2		
Arrangement 3		
Arrangement 4		

Item Type: Table Item



Lesson 6

MAFS.4.OA.3.5

Topic:

Number Patterns

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.3.5

Generate a number or shape pattern that follows a given rule.
Identify apparent features of the pattern that were not explicit in the rule itself.

Let Me Teach Ya! (Video Lesson)

Example 1:
The first number in a pattern is 8. The pattern follows the rule "Add 7." What are the next three numbers in the pattern?

Item Type: *Equation Editor*

Example 2:
The first number in a pattern is 1. The pattern follows the rule "Multiply by 2." What are the next 4 numbers in the pattern?

a. 2, 3, 4, 5
b. 2, 4, 6, 8
c. 2, 4, 8, 12
d. 2, 4, 8, 16

Item Type: *Multiple Choice*

Example 3:
The first number number is a pattern is 400. The pattern follows the rule "Divide by 2." Place the numbers in the correct order to represent the pattern.

800	600	400	300	200
100	80	60	50	25

, , , ,

Item Type: *GRID*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.3.5

Generate a number or shape pattern that follows a given rule.
Identify apparent features of the pattern that were not explicit in the rule itself.

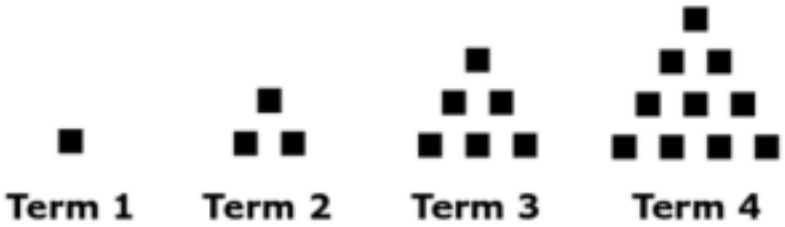
Let Me Teach Ya! (Video Lesson)

Example 4:
The first number in a pattern 48. The pattern follows the rule "Subtract 8." Complete the table to show the next three numbers in the pattern.

Number in the Pattern
48

Item Type: Table Item

Example 5:
A pattern is shown.



Describe how the number of total squares in each term of the pattern is related to the term's number.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.3.5

Generate a number or shape pattern that follows a given rule.
Identify apparent features of the pattern that were not explicit in the rule itself.

Practice Makes Improvement – Level 1

Example 1:
The first number in a pattern is 6. The pattern follows the rule "Add 9." What are the next three numbers in the pattern?

Item Type: *Equation Editor*

Example 2:
The first number in a pattern is 2. The pattern follows the rule "Multiply by 3." What are the next 4 numbers in the pattern?

a. 6, 12, 18, 24
b. 6, 12, 24, 48
c. 6, 18, 54, 162
d. 6, 18, 56, 168

Item Type: *Multiple Choice*

Example 3:
The first number number is a pattern is 800. The pattern follows the rule "Divide by 2." Place the numbers in the correct order to represent the pattern.

800	600	400	300	200
100	80	60	50	25

, , , ,

Item Type: *GRID*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.3.5

Generate a number or shape pattern that follows a given rule.
Identify apparent features of the pattern that were not explicit in the rule itself.

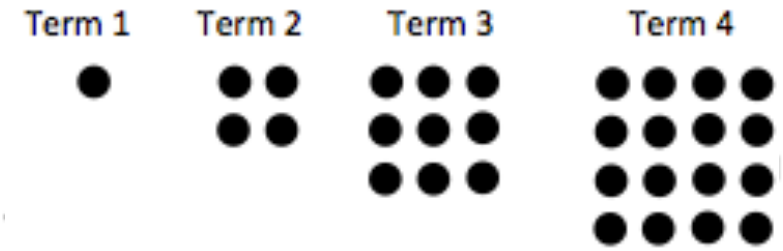
Practice Makes Improvement – Level 1

Example 4:
The first number in a pattern 57. The pattern follows the rule "Subtract 9." Complete the table to show the next three numbers in the pattern.

Number in the Pattern
57

Item Type: Table Item

Example 5:
A pattern is shown.



Describe how the number of total squares in each term of the pattern is related to the term's number.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.3.5

Generate a number or shape pattern that follows a given rule.
Identify apparent features of the pattern that were not explicit in the rule itself.

Practice Makes Improvement – Level 2

Example 1:
The first number in a pattern is 7. The pattern follows the rule "Add 23." What are the next five numbers in the pattern?

Item Type: Equation Editor

Example 2:
The first number in a pattern is 3. The pattern follows the rule "Multiply by 4." What are the next 3 numbers in the pattern?

a. 12, 48, 192
b. 12, 48, 200
c. 12, 48, 144
d. 12, 48, 212

Item Type: Multiple Choice

Example 3:
The first number number is a pattern is 1,350. The pattern follows the rule "Divide by 3." Place the numbers in the correct order to represent the pattern.

1,350	1,150	850	650	550
450	350	250	150	50

, , ,

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.OA.3.5

Generate a number or shape pattern that follows a given rule.
Identify apparent features of the pattern that were not explicit in the rule itself.

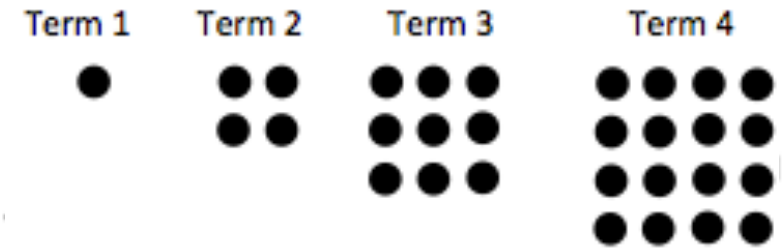
Practice Makes Improvement – Level 2

Example 4:
The first number in a pattern 1,000. The pattern follows the rule "Subtract 23." Complete the table to show the next three numbers in the pattern.

Number in the Pattern
1,000

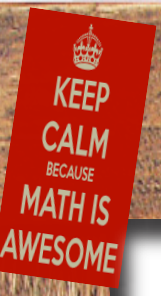
Item Type: Table Item

Example 5:
A pattern is shown.



Based on the pattern, how many circles will the 7th term have? Explain your reasoning.

Item Type: Open Response



Lesson 7

MAFS.4.NBT.1.1

Topic:

Place Value

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.1

Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.

Let Me Teach Ya! (Video Lesson)

Example 1:
How many times greater is the value of the 5 in 750,600 than the value of the 5 in 75,060?

Item Type: Equation Editor

Example 2:
How many times greater is 3,600 than 360?

a. 10
b. 36
c. 100
d. 360

Item Type: Multiple Choice

Example 3:
Write a number that is 10 times greater than 4,400.

Item Type: Equation Editor

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.1

Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.

Let Me Teach Ya! (Video Lesson)

Example 4:

How many times greater is the value of the 6 in 123,465 than the value of the 6 in 123,456?

a. 1
b. 10
c. 100
d. 1,000

Item Type: Multiple Choice

Example 5:

Mrs. Williams writes the following number on the board.

789,123

She instructs her students to write a number where the value of the 9 in their number is 10 times greater than the value of the 9 in the number on the board. Duwan writes the number 781,923. Is his answer correct? Explain how you know.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.1

Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.

Practice Makes Improvement – Level 1

Example 1:

How many times greater is the value of the 8 in 382,000 than the value of the 8 in 38,200?

Item Type: Equation Editor

Example 2:

How many times greater is 4,500 than 450?

a. 10
b. 45
c. 100
d. 450

Item Type: Multiple Choice

Example 3:

Write a number that is 10 times greater than 64,000.

Item Type: Equation Editor

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.1

Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.

Practice Makes Improvement – Level 1

Example 4:

How many times greater is the value of the 7 in 171,889 than the value of the 7 in 117,889?

a. 1
b. 10
c. 100
d. 1,000

Item Type: Multiple Choice

Example 5:

Mrs. Williams writes the following number on the board.

276,954

She instructs her students to write a number where the value of the 6 in their number is 10 times greater than the value of the 6 in the number on the board. Duwan writes the number 286,123 . Is his answer correct? Explain how you know.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.1

Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.

Practice Makes Improvement – Level 2

Example 1:

How many times greater is the value of the 4 in 900,400 than the value of the 4 in 900,040?

Item Type: Equation Editor

Example 2:

How many times greater is 6,680 than 668?

a. 668
b. 68
c. 100
d. 10

Item Type: Multiple Choice

Example 3:

Write a number that is 10 times greater than 12,287.

Item Type: Equation Editor

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.1

Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.

Practice Makes Improvement – Level 2

Example 4:

How many times greater is the value of the 6 in 868,171 than the value of the 6 in 886,171?

a. 1
b. 10
c. 100
d. 1,000

Item Type: Multiple Choice

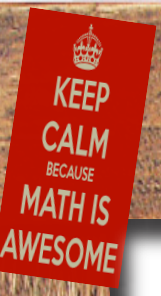
Example 5:

Mrs. Williams writes the following number on the board.

143,586

She instructs her students to write a number where the value of the 8 in their number is 10 times greater than the value of the 8 in the number on the board. Duwan writes the number 143,856. Katelyn writes the number 143, 865. Whose answer is correct? Explain how you know.

Item Type: Open Response



Lesson 8

MAFS.4.NBT.1.2

Topic:

Read, Write, and Compare Whole Numbers

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.2

Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbol to record the results of comparisons.

Let Me Teach Ya! (Video Lesson)

Example 1:

Write 5 x 100,000 + 4 x 1,000 + 2 x 10 as a number.

Item Type: Equation Editor

Example 2:

Which phrase represents "62,588?"

a. sixty – two, five eighty – eight
b. six – two thousand, five hundred eighty – eight
c. sixty – two thousand, five hundred eighty
d. sixty – two thousand, five hundred eighty – eight

Item Type: Multiple Choice

Example 3:

Select all the options with 32,829 written in expanded form.

a. 3 ten-thousands, 28 hundreds, 29 ones
b. 3 ten-thousands, 2 thousands, 82 hundreds, 9 ones
c. 30 thousands, 20 hundreds, 80 tens, 29 ones
d. 30 thousands, 28 hundreds, 20 tens, 9 ones
e. 32 thousands, 8 hundreds, 2 tens, 9 ones
f. 3 ten-thousands, 2 thousands, 8 hundreds, 2 tens, 9 ones

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.2

Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbol to record the results of comparisons.

Let Me Teach Ya! (Video Lesson)

Example 4:

"Drag" each number to the correct value.

2 x 10,000 + 3 x 1,000 + 4 x 100 + 5 x 10 + 6 x 1	2 hundred-thousands, 34 hundreds, 56 ones	234 hundreds, 56 ones
2 thousands, 35 tens, 6 ones	twenty - three thousand, four hundred fifty-six	2 x 100,000 + 3 x 1,000 + 4 x 100 + 5 x 10 + 6 x 1
two hundred three thousand, four hundred fifty-six	2 x 1,000 + 3 x 100 + 5 x 10 + 6 x 1	two thousand, three hundred fifty-six

23,456	2,356	203,456

Item Type: GRID

Example 5:

Match each pair of numbers to the symbol that correct compares the numbers.

	<	>	=
98,765 ____ 98,675			
98,765 ___ 98,756			
98,765 ____ 98 thousands, 76 tens, 5 ones			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.2

Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbol to record the results of comparisons.

Practice Makes Improvement – Level 1

Example 1:

Write 6 x 100,000 + 3 x 10,000 + 4 x 100 + 7 x 1 as a number.

Item Type: Equation Editor

Example 2:

Which phrase represents "743,965?"

a. seven four three, nine six five
b. seven hundred forty-three, nine hundred sixty-five
c. seven hundred forty-three thousand, nine hundred sixty-five
d. seven hundred forty-three thousand, nine sixty-five

Item Type: Multiple Choice

Example 3:

Select all the options with 64,273 written in expanded form.

a. 6 ten-thousands, 42 hundreds, 73 ones
b. 6 ten-thousands, 42 thousands, 73 tens
c. 60 thousands, 42 hundreds, 7 tens, 3 ones
d. 60 thousands, 4 thousands, 27 hundreds, 3 ones
e. 64 thousands, 27 hundreds, 3 ones
f. 64 thousands, 27 tens, 3 ones

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.2

Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbol to record the results of comparisons.

Practice Makes Improvement – Level 1

Example 4:

"Drag" each number to the correct value.

thirteen thousand, four hundred seventy-four	1 thousand, 3 hundred, 74 ones	1 x 10,000 + 3 x 1,000 + 4 x 100 + 7 x 10 + 4 x 1
1 x 1,000 + 3 x 100 + 7 x 10 + 4 x 1	1 x 100,000 + 3 x 10,000 + 4 x 1,000 + 7 x 10 + 4 x 1	one thousand, three hundred seventy-four
13 thousands, 47 tens, 4 ones	one hundred thirty-four thousand, seventy-four	13 ten-thousands, 4 thousands, 7 tens, 4 ones

13,474	1,374	134,074

Item Type: GRID

Example 5:

Match each pair of numbers to the symbol that correct compares the numbers.

	<	>	=
838,969 ____ 838,996			
883,699 ___ 883,699			
838,969 ____ 83 ten-thousands, 89 hundreds			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.2

Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbol to record the results of comparisons.

Practice Makes Improvement – Level 2

Example 1:

Write 83 x 1,000 + 7 x 10 as a number.

Item Type: Equation Editor

Example 2:

Which phrase represents "96, 086?"

a. ninety-six thousand, eighty-six
b. ninety-six thousand, eight hundred six
c. nine-six thousand, eight-six
d. nine-six thousand, eight hundred six

Item Type: Multiple Choice

Example 3:

Select all the options with 777,777 written in expanded form.

a. 77 thousands, 7 hundreds, 7 tens, 7 ones
b. 7 hundred thousands, 77 thousands, 77 tens, 7 ones
c. 77 ten-thousands, 77 hundreds, 77 ones
d. 7 hundred-thousands, 7 ten-thousands, 7 thousands, 7 hundreds, 7 tens, 7 ones
e. 7 hundred-thousands, 7 ten-thousands, 7 thousands, 77 hundreds, 7 ones
f. 77 ten-thousands, 77 thousands, 77 hundreds, 7 tens, 7 ones

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.2

Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbol to record the results of comparisons.

Practice Makes Improvement – Level 2

Example 4:

"Drag" each number to the correct value.

6 x 10,000 + 8 x 1,000 + 6 x 100 + 9 x 10	six hundred eighty-six thousand, nine hundred nine	68 hundreds, 69 ones
six thousand, eight hundred sixty-nine	sixty-eight thousand, six hundred ninety	6 x 100,000 + 8 x 10,000 + 6 x 1,000 + 9 x 100 + 9 x 1
68 ten-thousands, 6 thousand, 90 tens, 9 ones	6 x 1,000 + 8 x 100 + 6 x 10 + 9 x 1	68 thousands, 6 hundreds, 90 ones

686,909	68,690	6,869

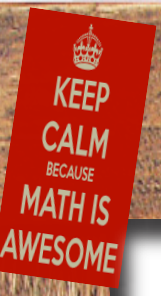
Item Type: GRID

Example 5:

Match each pair of numbers to the symbol that correct compares the numbers.

	<	>	=
987,654 ____ 987,645			
434,868 ___ 434,868			
74 thousands, 7 hundreds, 47 ones ____ 74,774			

Item Type: Matching Item



Lesson 9

MAFS.4.NBT.1.3

Topic:

Rounding Whole Numbers

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.3

Use place value understanding to round multi-digit whole numbers to any place.

Let Me Teach Ya! (Video Lesson)

Example 1:

A. Round 680,450 to the nearest hundred thousand.

B. Round 680,450 to the nearest ten thousand.

C. Round 680,450 to the nearest thousand.

Item Type: Equation Editor

Example 2:

Complete the table to show how each original number was rounded to make the new number.

Original	New	Nearest 100	Nearest 1,000
4,678	4,700		
14,743	15,000		
17,936	17,900		

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.3

Use place value understanding to round multi-digit whole numbers to any place.

Let Me Teach Ya! (Video Lesson)

Example 3:

Which numbers round to 3,100 when rounded to the nearest hundred?

a. 3,009
b. 3,140
c. 3,070
d. 3,179
e. 3,089

Item Type: Multi-select

Example 4:

Original numbers are rounded to the nearest hundred and to the nearest thousand. The original numbers are different from all the rounded numbers in the table.

Complete the table with possible original numbers.

Original Number	Rounded to the Nearest Hundred	Rounded to the Nearest Thousand
	12,700	13,000
	3,400	3,000
	154,900	155,000

Item Type: Table Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.3

Use place value understanding to round multi-digit whole numbers to any place.

Practice Makes Improvement – Level 1

Example 1:

A. Round 747,832 to the nearest hundred thousand.

B. Round 747,832 to the nearest ten thousand.

C. Round 747,832 to the nearest thousand.

Item Type: Equation Editor

Example 2:

Complete the table to show how each original number was rounded to make the new number.

Original	New	Nearest 100	Nearest 1,000
8,379	8,000		
93,742	93,700		
406,699	406,700		

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.3

Use place value understanding to round multi-digit whole numbers to any place.

Practice Makes Improvement – Level 1

Example 3:

Which numbers round to 54,000 when rounded to the nearest thousand?

a. 53,500
b. 53,478
c. 54,500
d. 54,289
e. 54,709

Item Type: Multi-select

Example 4:

Original numbers are rounded to the nearest hundred and to the nearest thousand. The original numbers are different from all the rounded numbers in the table.

Complete the table with possible original numbers.

Original Number	Rounded to the Nearest Hundred	Rounded to the Nearest Thousand
	93,400	93,000
	105,500	105,000
	984,700	985,000

Item Type: Table Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.3

Use place value understanding to round multi-digit whole numbers to any place.

Practice Makes Improvement – Level 2

Example 1:

A. Round 898,989 to the nearest hundred thousand.

B. Round 898,989 to the nearest ten thousand.

C. Round 898,989 to the nearest thousand.

Item Type: Equation Editor

Example 2:

Complete the table to show how each original number was rounded to make the new number.

Original	New	Nearest 100	Nearest 1,000
7,837	7,800		
17,873	17,900		
178,734	179,000		

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.1.3

Use place value understanding to round multi-digit whole numbers to any place.

Practice Makes Improvement – Level 2

Example 3:

Which numbers round to 880,000 when rounded to the nearest ten-thousands place?

a. 876,123
b. 885,123
c. 874,788
d. 889,000
e. 884,876

Item Type: Multi-select

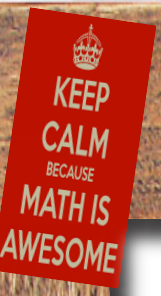
Example 4:

Original numbers are rounded to the nearest hundred and to the nearest thousand. The original numbers are different from all the rounded numbers in the table.

Complete the table with possible original numbers.

Original Number	Rounded to the Nearest Hundred	Rounded to the Nearest Thousand
	1,600	2,000
	765,500	765,000
	103,300	103,000

Item Type: Table Item



Lesson 10

MAFS.4.NBT.2.4

Topic:

Fluently Add and Subtract (Standard Algorithm)

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.4

Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Let Me Teach Ya! (Video Lesson)

Example 1:

An addition problem is shown.

$$\begin{array}{r} 57{,}839 \\ 43{,}964 \\ +\ \ 2{,}183 \\ \hline \end{array}$$

Calculate the sum.

Item Type: Equation Editor

Example 2:

What is the difference of 42,312 and 1,765?

Item Type: Equation Editor

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.4

Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.

Let Me Teach Ya! (Video Lesson)

Example 3:

An addition statement is shown.

$$\begin{array}{r} 25{,}133 \\ 17{,}\square 88 \\ +\ 11{,}247 \\ \hline 54{,}168 \end{array}$$

What is the missing digit that makes the addition statement true?

a. 6
b. 7
c. 8
d. 9

Item Type: *Multiple Choice*

Example 4:

Drag the missing digits to complete the subtraction statement.

1
2
3
4
5
6
7
8
9

$$\begin{array}{r} 143{,}876 \\ -\ 129{,}589 \\ \hline 1\square{,}2\square 7 \end{array}$$

Item Type: *GRID*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.4

Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Practice Makes Improvement – Level 1

Example 1:

An addition problem is shown.

$$\begin{array}{r} 41{,}712 \\ 24{,}375 \\ +\ 26{,}874 \\ \hline \end{array}$$

Calculate the sum.

Item Type: Equation Editor

Example 2:

What is the difference of 24,156 and 10,631?

Item Type: Equation Editor

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.4

Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.

Practice Makes Improvement – Level 1

Example 3:

An addition statement is shown.

$$\begin{array}{r} 45{,}499 \\ 13{,}329 \\ +\ \square 7{,}015 \\ \hline 95{,}843 \end{array}$$

What is the missing digit that makes the addition statement true?

a. 2
b. 3
c. 4
d. 5

Item Type: Multiple Choice

Example 4:

Drag the missing digits to complete the subtraction statement.

1
2
3
4
5
6
7
8
9

$$\begin{array}{r} 61{,}532 \\ -\ \square 6{,}894 \\ \hline 24{,}63\square \end{array}$$

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.4

Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Practice Makes Improvement – Level 2

Example 1:

An addition problem is shown.

$$\begin{array}{r} 59{,}740 \\ 35{,}670 \\ +\ 19{,}613 \\ \hline \end{array}$$

Calculate the sum.

Item Type: Equation Editor

Example 2:

What is the difference of 45,944 and 36,071?

Item Type: Equation Editor

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.4

Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.

Practice Makes Improvement – Level 2

Example 3:

An addition statement is shown.

$$\begin{array}{r} 67,\square 87 \\ +\ 22,272 \\ \hline 89,859 \end{array}$$

What is the missing digit that makes the addition statement true?

a. 3
b. 4
c. 5
d. 6

Item Type: Multiple Choice

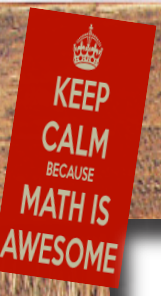
Example 4:

Drag the missing digits to complete the subtraction statement.

1
2
3
4
5
6
7
8
9

$$\begin{array}{r} 60,07\square \\ -\ \square 8,471 \\ \hline 41,\square 07 \end{array}$$

Item Type: GRID



Lesson II

MAFS.4.NBT.2.5

Topic:

Multi-Digit Multiplication

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.5

Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Let Me Teach Ya! (Video Lesson)

Example 1:

What is the product of 3,875 and 4?

Item Type: *Equation Editor*

Example 2:

Select all the expressions that have a product of 540.

a. 45 x 12
b. (40 x 5) + (10 x 2)
c. (40 + 5) x (10 + 2)
d. 54 x 10
e. 180 x 3
f. 5 x 40

Item Type: *Multi-Select*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.5

Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Let Me Teach Ya! (Video Lesson)

Example 3:

Complete the area model below to find the product of 43 and 37?

1,591
1,200
280
90
21

	40	3
30		
7		

43 x 37 = ☐

Item Type: GRID

Example 4:

Examine the standard algorithm for multi-digit multiplication used in this problem.

```
  1,893
x     7
-------
7,566,321
```

Part A: Describe the error made.

Part B: What is the correct product of 1,893 and 7?

Item Type: Open Response/Equation Editor

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.5

Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Practice Makes Improvement – Level 1

Example 1:

What is the product of 6,871 and 3?

Item Type: Equation Editor

Example 2:

Select all the expressions that have a product of 360.

a. 3 x 60
b. (3 x 12) + (5 x 2)
c. 24 x 15
d. 36 x 0
e. (20 x 4) + (10 x 5)
f. (20 + 4) x (10 + 5)

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.5

Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Practice Makes Improvement – Level 1

Example 3:

Complete the area model below to find the product of 86 and 19?

54
60
720
800
1,634

	80	6
10		
9		

86 x 19 = ☐

Item Type: GRID

Example 4:

Examine the standard algorithm for multi-digit multiplication used in this problem.

```
  3,456
x     8
-------
24,324,048
```

Part A: Describe the error made.

Part B: What is the correct product of 3,456 and 8?

Item Type: Open Response/Equation Editor

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.5

Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Practice Makes Improvement – Level 2

Example 1:

What is the product of 9,870 and 8?

Item Type: Equation Editor

Example 2:

Select all the expressions that have a product of 1,075.

a. 215 x 5
b. 75 x 3
c. (200 x 5) + (50 x 5)
d. 1,075 x 10
e. 43 x 25
f. (40 + 3) x (20 x 5)

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.5

Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Practice Makes Improvement – Level 2

Example 3:

Complete the area model below to find the product of 93 and 27?

60
600
180
1,800
630
6,300
21
2,411
2,511

	90	3
20		
7		

93 x 27 = ☐

Item Type: GRID

Example 4:

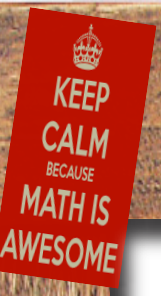
Examine the standard algorithm for multi-digit multiplication used in this problem.

$$\begin{array}{r} 34 \\ \times\ 45 \\ \hline 170 \\ +\ 1{,}460 \\ \hline 1{,}630 \end{array}$$

Part A: Describe the error made.

Part B: What is the correct product of 34 and 45?

Item Type: Open Response/Equation Editor



Lesson 12

MAFS.4.NBT.2.6

Topic:

Multi-Digit Division (Long Division)

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.6

Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Let Me Teach Ya! (Video Lesson)

Example 1:

What is 2,184 divided by 9?

Item Type: Equation Editor

Example 2:

Select all the expressions that have a value of 64.

a. 768 ÷ 8
b. 265 ÷ 4
c. 448 ÷ 7
d. 1,536 ÷ 4
e. 576 ÷ 9

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.6

Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Let Me Teach Ya! (Video Lesson)

Example 3:

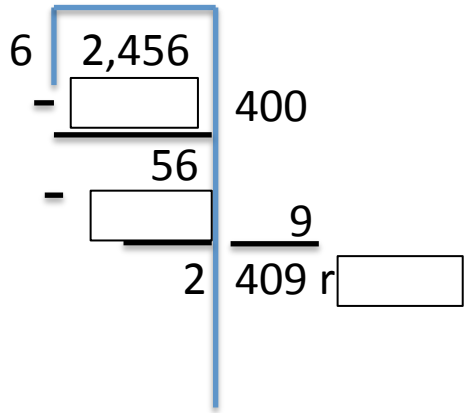
What is the quotient of 1,234 and 4?

a. 308
b. 308 R 1
c. 308 R 2
d. 309

Item Type: Multiple Choice

Example 4:
Drag the numbers to the correct boxes to solve the division problem using the partial quotients method.

2
3
48
54
2,400
2,100



Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.6

Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Practice Makes Improvement – Level 1

Example 1:

What is 3,256 divided by 6?

Item Type: Equation Editor

Example 2:

Select all the expressions that have a value of 35.

a. 280 ÷ 8
b. 140 ÷ 4
c. 255 ÷ 7
d. 316 ÷ 9
e. 95 ÷ 3

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.6

Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Practice Makes Improvement – Level 1

Example 3:

What is the quotient of 3,546 and 7?

a. 507 R 4
b. 506 R 4
c. 507 R 6
d. 506 R 6

Item Type: Multiple Choice

Example 4:

Drag the numbers to the correct boxes to solve the division problem using the partial quotients method.

2
7
125
150
300
3,000

5 | 3,177

- ☐ = 600
177
- ☐ = 30
27
- 25 = 5
2 = 635 R ☐

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.6

Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Practice Makes Improvement – Level 2

Example 1:

What is 4,253 divided by 7?

Item Type: Equation Editor

Example 2:

Select all the expressions that have a value of 57.

a. 104 ÷ 2
b. 226 ÷ 4
c. 342 ÷ 6
d. 398 ÷ 7
e. 513 ÷ 9

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NBT.2.6

Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Practice Makes Improvement – Level 2

Example 3:

What is the quotient of 5,062 and 2?

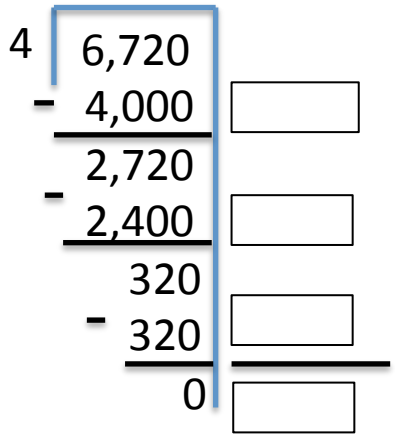
a. 2,530
b. 2,531
c. 2,530 R 4
d. 2,531 R 1

Item Type: Multiple Choice

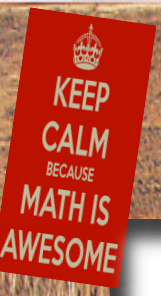
Example 4:

Drag the numbers to the correct boxes to solve the division problem using the partial quotients method.

4,000
1,000
600
800
80
90
1,680
1,670



Item Type: GRID



Lesson 13

MAFS.4.NF.1.1

Topic:

Equivalent Fractions

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.1.1

Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $\frac{(n\times a)}{(n\times b)}$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions

Let Me Teach Ya! (Video Lesson)

Example 1:

Write a fraction that is equivalent to $\frac{2}{3}$.

Item Type: Equation Editor

Example 2:

Gail tried to find a fraction equivalent to $\frac{3}{8}$. Her work is shown.

$$\frac{3}{8} = \frac{3}{8} \times \frac{1}{2} = \frac{3}{16}$$

Which statement describes Gail's error?

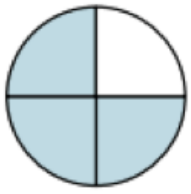
a. She should have divided by 2.
b. She did not multiply $\frac{3}{8}$ by a fraction equal to 1.
c. It is impossible to find a fraction equivalent to $\frac{3}{8}$.
d. She incorrectly multiplied $\frac{3}{8}$ and $\frac{1}{2}$.

Item Type: Multiple Choice

Example 3:

Sofia modeled a fraction by shading parts of the circle as shown.

Sofia's Fraction Model



Select sections to model a fraction equivalent to Sofia's fraction.

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.1.1

Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $\frac{(n\times a)}{(n\times b)}$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions

Let Me Teach Ya! (Video Lesson)

Example 4:

Which fractions are equivalent to $\frac{4}{5}$?

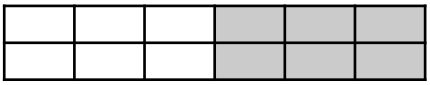
a. $\frac{9}{12}$ c. $\frac{5}{4}$ e. $\frac{8}{10}$

b. $\frac{6}{8}$ d. $\frac{80}{100}$

Item Type: Multi-Select

Example 5:

Match the visual model with the correct equivalent fraction.

	$\frac{4}{12}$	$\frac{2}{3}$	$\frac{1}{2}$
			
			
			

Item Type: Matching Items

Example 6:

Joshua claims that $\frac{1}{3}$ is equivalent to $\frac{3}{12}$ because $\frac{1 \times 3 = 3}{3 \times 3 = 12}$. Do you agree with Joshua's claim? Explain your reasoning.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.1.1

Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $\frac{(n\times a)}{(n\times b)}$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions

Practice Makes Improvement – Level 1

Example 1:

Write a fraction that is equivalent to $\frac{3}{5}$.

Item Type: Equation Editor

Example 2:

Gail tried to find a fraction equivalent to $\frac{1}{6}$. Her work is shown.

$$\frac{1}{6} = \frac{1}{6} \times \frac{1}{6} = \frac{1}{36}$$

Which statement describes Gail's error?

a. She should have divided by 6.
b. She incorrectly multiplied $\frac{1}{6}$ and $\frac{1}{6}$.
c. She did not multiply $\frac{1}{6}$ by a fraction equal to 1.
d. It is impossible to find a fraction equivalent to $\frac{1}{6}$.

Item Type: Multiple Choice

Example 3:

Sofia modeled a fraction by shading parts of the circle as shown.

Sofia's Fraction Model

Select sections to model a fraction equivalent to Sofia's fraction.

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.1.1

Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $\frac{(n\times a)}{(n\times b)}$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions

Practice Makes Improvement – Level 1

Example 4:

Which fractions are equivalent to $\frac{2}{8}$?

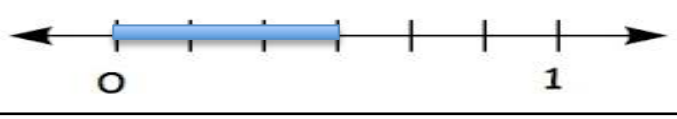
a. $\frac{1}{4}$ c. $\frac{8}{2}$ e. $\frac{4}{12}$

b. $\frac{1}{2}$ d. $\frac{3}{12}$

Item Type: Multi-Select

Example 5:

Match the visual model with the correct equivalent fraction.

	$\frac{3}{5}$	$\frac{1}{2}$	$\frac{2}{3}$
			
			
			

Item Type: Matching Items

Example 6:

Joshua claims that $\frac{2}{5}$ is equivalent to $\frac{2}{10}$ because $\frac{2}{5} = \frac{2}{5} \times \frac{1}{2} = \frac{2}{10}$. Do you agree with Joshua's claim? Explain your reasoning.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.1.1

Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $\frac{(n\times a)}{(n\times b)}$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions

Practice Makes Improvement – Level 2

Example 1:

Write a fraction that is equivalent to $\frac{6}{8}$.

Item Type: Equation Editor

Example 2:

Jill tried to find a fraction equivalent to $\frac{1}{5}$. Her work is shown.

$$\frac{1}{5} = \frac{1}{5} \times \frac{5}{5} = \frac{5}{10}$$

Which statement describes Jill's error?

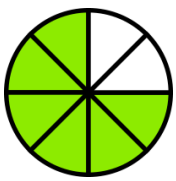
a. She should have divided by 5.
b. She incorrectly multiplied $\frac{1}{5}$ and $\frac{5}{5}$.
c. She did not multiply $\frac{1}{5}$ by a fraction equal to 1.
d. It is impossible to find a fraction equivalent to $\frac{1}{5}$.

Item Type: Multiple Choice

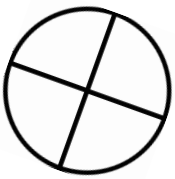
Example 3:

Jake modeled a fraction by shading parts of the circle as shown.

Jake's Fraction Model



Select sections to model a fraction equivalent to Jake's fraction.



Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.1.1

Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $\frac{(n\times a)}{(n\times b)}$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions

Practice Makes Improvement – Level 2

Example 4:

Which fractions are equivalent to $\frac{3}{6}$?

a. $\frac{6}{3}$

c. $\frac{2}{5}$

e. $\frac{1}{3}$

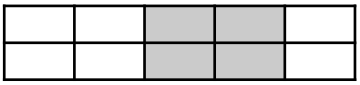
b. $\frac{5}{10}$

d. $\frac{1}{2}$

Item Type: Multi-Select

Example 5:

Match the visual model with the correct equivalent fraction.

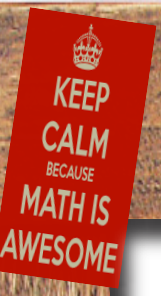
	$\frac{10}{10}$	$\frac{1}{4}$	$\frac{2}{5}$
			
			
			

Item Type: Matching Item

Example 6:

Explain the steps needed to create a fraction equivalent to $\frac{1}{2}$.

Item Type: Open Response



Lesson 14

MAFS.4.NF.1.2

Topic:

Comparing Fractions

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.1.2

Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >,=, or <, and justify the conclusions, e.g., by using a visual fraction model.

Let Me Teach Ya! (Video Lesson)

Example 1:

Use the visuals to write a statement comparing the shaded part of the two fractions below.

Item Type: Equation Editor

Example 2:

Select >, <, or = to complete a true comparison for each pair of fractions.

	>	<	=
$\frac{5}{3}$ ☐ $\frac{7}{5}$			
$\frac{8}{2}$ ☐ $\frac{12}{3}$			
$\frac{2}{5}$ ☐ $\frac{3}{4}$			

Item Type: Matching Item

Example 3:

Drag the correct symbol to correctly compare the two fractions.

>
<
=

$$\frac{12}{9} \square \frac{4}{3}$$

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.1.2

Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >,=, or <, and justify the conclusions, e.g., by using a visual fraction model.

Let Me Teach Ya! (Video Lesson)

Example 4:

Which statement below correctly compares the two fractions?

a. $\frac{1}{2} > \frac{3}{5}$

b. $\frac{1}{2} < \frac{3}{5}$

c. $\frac{3}{5} = \frac{1}{2}$

d. $\frac{3}{5} < \frac{1}{2}$

Item Type: Multiple Choice

Example 5:

Select all the fractions that are less than $\frac{3}{4}$.

a. $\frac{2}{3}$

b. $\frac{4}{5}$

c. $\frac{4}{3}$

d. $\frac{5}{2}$

e. $\frac{6}{3}$

f. $\frac{2}{8}$

Item Type: Multi-Select

Example 6:

Molly has two fraction models, each divided into equal-sized sections. The fraction represented by Model A is greater than the fraction represented by Model B.

Model A is divided into 4 sections, and 2 are shaded.
Model B is divided into 8 sections.

What do you know about the number of sections shaded in Model B? Explain your answer.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.1.2

Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >,=, or <, and justify the conclusions, e.g., by using a visual fraction model.

Practice Makes Improvement – Level 1

Example 1:

Use the visuals to write a statement comparing the shaded part of the two fractions below.

Item Type: Equation Editor

Example 2:

Select >, <, or = to complete a true comparison for each pair of fractions.

	>	<	=
$\frac{5}{3}$ ☐ $\frac{10}{6}$			
$\frac{8}{2}$ ☐ $\frac{12}{6}$			
$\frac{2}{5}$ ☐ $\frac{6}{10}$			

Item Type: Matching Item

Example 3:

Drag the correct symbol to correctly compare the two fractions.

>
<
=

$\frac{7}{4}$ ☐ $\frac{11}{12}$

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.1.2

Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >,=, or <, and justify the conclusions, e.g., by using a visual fraction model.

Practice Makes Improvement – Level 1

Example 4:

Which statement below correctly compares the two fractions?

a. $\frac{10}{8} > \frac{3}{4}$

b. $\frac{10}{8} < \frac{3}{4}$

c. $\frac{3}{4} = \frac{10}{8}$

d. $\frac{3}{4} > \frac{10}{8}$

Item Type: Multiple Choice

Example 5:

Select all the fractions that are less than $\frac{1}{2}$.

a. $\frac{2}{3}$

b. $\frac{2}{5}$

c. $\frac{4}{3}$

d. $\frac{4}{10}$

e. $\frac{6}{3}$

f. $\frac{2}{8}$

Item Type: Multi-Select

Example 6:

Molly has two fraction models, each divided into equal-sized sections. The fraction represented by Model A is greater than the fraction represented by Model B.

Model A is divided into 6 sections, and 4 are shaded.
Model B is divided into 12 sections.

What do you know about the number of sections shaded in Model B? Explain your answer.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

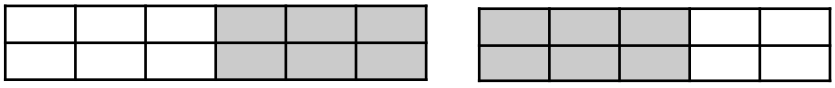
Focus: MAFS.4.NF.1.2

Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >,=, or <, and justify the conclusions, e.g., by using a visual fraction model.

Practice Makes Improvement – Level 2

Example 1:

Use the visuals to write a statement comparing the shaded part of the two fractions below.



Item Type: Equation Editor

Example 2:

Select >, <, or = to complete a true comparison for each pair of fractions.

	>	<	=
$\frac{12}{4}$ ☐ $\frac{10}{6}$			
$\frac{8}{2}$ ☐ $\frac{100}{10}$			
$\frac{9}{12}$ ☐ $\frac{6}{10}$			

Item Type: Matching Item

Example 3:

Drag the correct symbol to correctly compare the two fractions.

>
<
=

$$\frac{5}{12} \square \frac{12}{5}$$

Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.1.2

Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >,=, or <, and justify the conclusions, e.g., by using a visual fraction model.

Practice Makes Improvement – Level 2

Example 4:

Which statement below correctly compares the two fractions?

a. $\frac{3}{4} > \frac{9}{12}$

b. $\frac{3}{4} < \frac{9}{12}$

c. $\frac{9}{12} = \frac{3}{4}$

d. $\frac{9}{12} > \frac{3}{4}$

Item Type: Multiple Choice

Example 5:

Select all the fractions that are greater than $\frac{1}{4}$ but less than $\frac{3}{4}$.

a. $\frac{2}{3}$

b. $\frac{2}{5}$

c. $\frac{4}{3}$

d. $\frac{4}{10}$

e. $\frac{6}{3}$

f. $\frac{2}{8}$

Item Type: Multi-Select

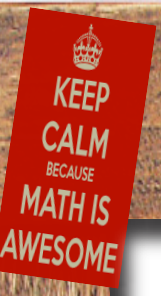
Example 6:

Molly has two fraction models, each divided into equal-sized sections. The fraction represented by Model A is less than the fraction represented by Model B.

Model A is divided into 5 sections, and 2 are shaded.
Model B is divided into 10 sections.

What do you know about the number of sections shaded in Model B? Explain your answer.

Item Type: Open Response



Lesson 15

MAFS.4.NF.2.3

Topic:

Add and Subtract Fractions

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.2.3

Understand a fraction $\frac{a}{b}$ with a > 1 as a sum of fractions $\frac{1}{b}$.

Let Me Teach Ya! (Video Lesson)

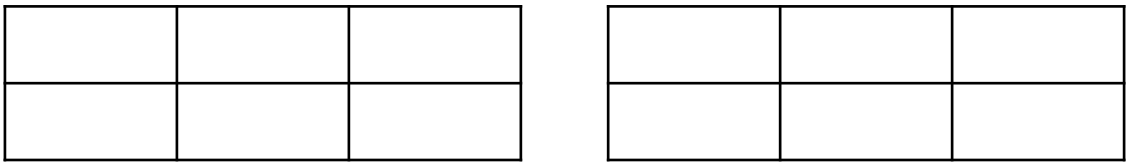
Example 1:
What is the sum of $2\frac{1}{4}$ and $3\frac{2}{4}$?

A. Write your answer as a mixed number.

B. Write your answer as a fraction.

Item Type: Equation Editor

Example 2:
Zayda completed $\frac{3}{6}$ hours of homework. Kai completed $\frac{4}{6}$ hours of homework. Use the fraction model below to show the total time that the students spent on their homework.



Item Type: GRID

Example 3:
Using the scenario from Example 2, how much more time did Kai spend on his homework?

a. $\frac{1}{6}$ hour

b. $\frac{2}{6}$ hour

c. $\frac{3}{6}$ hour

d. $\frac{4}{6}$ hour

Item Type: Multiple Choice

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.2.3

Understand a fraction $\frac{a}{b}$ with a > 1 as a sum of fractions $\frac{1}{b}$.

Let Me Teach Ya! (Video Lesson)

Example 4:

Match each expression to the correct sum or difference.

	$\frac{5}{3}$	$\frac{2}{3}$	$3\frac{2}{3}$
$\frac{1}{3}+\frac{1}{3}+\frac{3}{3}$			
$\frac{5}{3}+\frac{6}{3}$			
$2\frac{1}{3}-1\frac{2}{3}$			

Item Type: Matching Item

Example 5:

Select all the equations that show different ways to represent $\frac{7}{8}$

a. $\frac{3}{8}+\frac{4}{8}=\frac{7}{8}$

b. $\frac{1}{8}+\frac{7}{8}=\frac{7}{8}$

c. $\frac{4}{8}-\frac{3}{8}=\frac{7}{8}$

d. $\frac{14}{8}-\frac{6}{8}=\frac{7}{8}$

e. $\frac{1}{8}+\frac{1}{8}+\frac{1}{8}+\frac{1}{8}+\frac{1}{8}+\frac{1}{8}+\frac{1}{8}=\frac{7}{8}$

Item Type: Multi-select

Example 6:

John has $3\frac{3}{8}$ chocolate bars. He eats $1\frac{7}{8}$ of the chocolate bars. He claims that he has $2\frac{4}{8}$ bars of chocolate left. His work is shown below.

Step 1: Subtract whole numbers. $3 - 1 = 2$ → Step 2: Subtract fractions. $\frac{7}{8} - \frac{3}{8} = \frac{4}{8}$ → Step 3: Combine whole number and fraction $2\frac{4}{8}$

Do you agree with John? Explain your reasoning.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.2.3

Understand a fraction $\frac{a}{b}$ with a > 1 as a sum of fractions $\frac{1}{b}$.

Practice Makes Improvement – Level 1

Example 1:

What is the sum of $2\frac{8}{10}$ and $3\ \frac{4}{10}$?

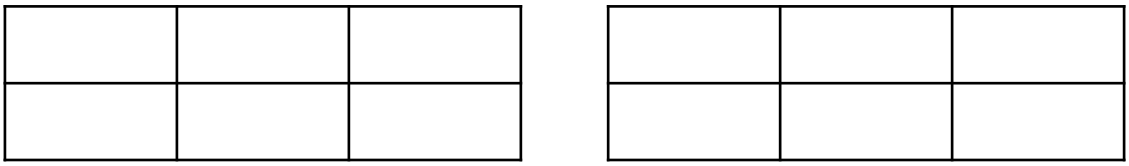
A. Write your answer as a mixed number.

B. Write your answer as a fraction.

Item Type: Equation Editor

Example 2:

Zayda completed $\frac{7}{6}$ hours of homework. Kai completed $\frac{4}{6}$ hours of homework. Use the fraction model below to show the total time that the students spent on their homework.



Item Type: GRID

Example 3:

Using the scenario from Example 2, how much more time did Zayda spend on her homework?

a. $\frac{1}{6}$ hour

b. $\frac{2}{6}$ hour

c. $\frac{3}{6}$ hour

d. $\frac{4}{6}$ hour

Item Type: Multiple Choice

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.2.3

Understand a fraction $\frac{a}{b}$ with a > 1 as a sum of fractions $\frac{1}{b}$.

Practice Makes Improvement – Level 1

Example 4:

Match each expression to the correct sum or difference.

	$2\frac{1}{12}$	$1\frac{2}{12}$	$\frac{8}{12}$
$\frac{6}{12}+\frac{1}{12}+\frac{1}{12}$			
$1\frac{5}{12}+\frac{8}{12}$			
$4\frac{6}{12}-3\frac{4}{12}$			

Item Type: Matching Item

Example 5:

Select all the equations that show different ways to represent $\frac{5}{5}$.

a. $\frac{1}{5}+\frac{1}{5}+\frac{1}{5}+\frac{1}{5}=\frac{5}{5}$

b. $\frac{10}{5}-\frac{5}{5}=\frac{5}{5}$

c. $\frac{1}{5}+\frac{2}{5}+\frac{1}{5}+\frac{1}{5}=\frac{5}{5}$

d. $\frac{15}{5}-\frac{5}{5}=\frac{5}{5}$

e. $\frac{7}{5}-\frac{1}{5}-\frac{1}{5}=\frac{5}{5}$

Item Type: Multi-select

Example 6:

John has $3\frac{1}{4}$ chocolate bars. He eats $2\frac{3}{4}$ of the chocolate bars. He claims that he has $1\frac{2}{4}$ bars of chocolate left. His work is shown below.

Step 1: Subtract whole numbers. $3 - 2 = 1$ → Step 2: Subtract fractions. $\frac{3}{4}-\frac{1}{4}=\frac{2}{4}$ → Step 3: Combine whole number and fraction $1\frac{2}{4}$

Do you agree with John? Explain your reasoning.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.2.3

Understand a fraction $\frac{a}{b}$ with a > 1 as a sum of fractions $\frac{1}{b}$.

Practice Makes Improvement – Level 2

Example 1:

What is the difference of $3\frac{4}{10}$ and $1\frac{8}{10}$?

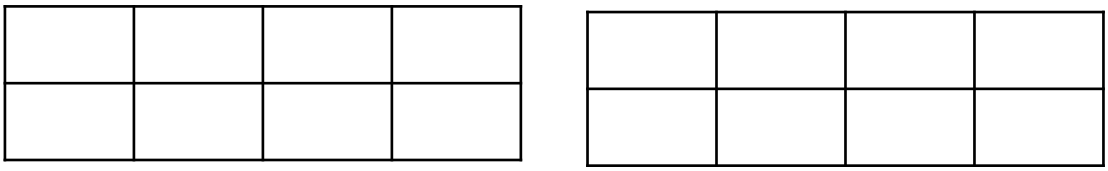
A. Write your answer as a mixed number.

B. Write your answer as a fraction.

Item Type: Equation Editor

Example 2:

Trent drank $\frac{3}{8}$ gallons of water. Gavin drank $\frac{9}{8}$ gallons of water. Use the fraction model below to show the total amount of water, in gallons, that the boys drank.



Item Type: GRID

Example 3:

Using the scenario from Example 2, how many more gallons did Gavin drink?

a. $\frac{3}{8}$

b. $\frac{5}{8}$

c. $\frac{6}{8}$

d. $\frac{12}{8}$

Item Type: Multiple Choice

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.2.3

Understand a fraction $\frac{a}{b}$ with a > 1 as a sum of fractions $\frac{1}{b}$.

Practice Makes Improvement – Level 2

Example 4:

Match each expression to the correct sum or difference.

	$\frac{5}{4}$	$13\frac{3}{4}$	1
$5\frac{3}{4} + 8$			
$\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}$			
$\frac{5}{4}-\frac{1}{4}$			

Item Type: Matching Item

Example 5:

Select all the equations that show different ways to represent $\frac{6}{2}$.

a. $\frac{1}{6}+\frac{1}{6}=\frac{6}{2}$

b. $\frac{3}{2}+\frac{2}{2}+\frac{1}{2}=\frac{6}{2}$

c. $\frac{8}{2}-\frac{2}{2}=\frac{6}{2}$

d. $\frac{8}{2}-\frac{6}{2}=\frac{6}{2}$

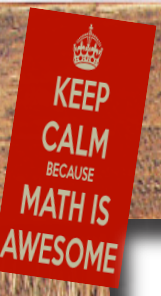
e. $\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}=\frac{6}{2}$

Item Type: Multi-select

Example 6:

Sebastian writes a $3\frac{1}{2}$ page essay on robotics and a $2\frac{1}{2}$ page essay comparing Elsa and Anna. How many pages did he write in all? Explain the steps you took to solve the problem.

Item Type: Open Response



Lesson 16

MAFS.4.NF.2.4

Topic:

Multiply Fractions by a Whole Number

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.2.4

Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.

Let Me Teach Ya! (Video Lesson)

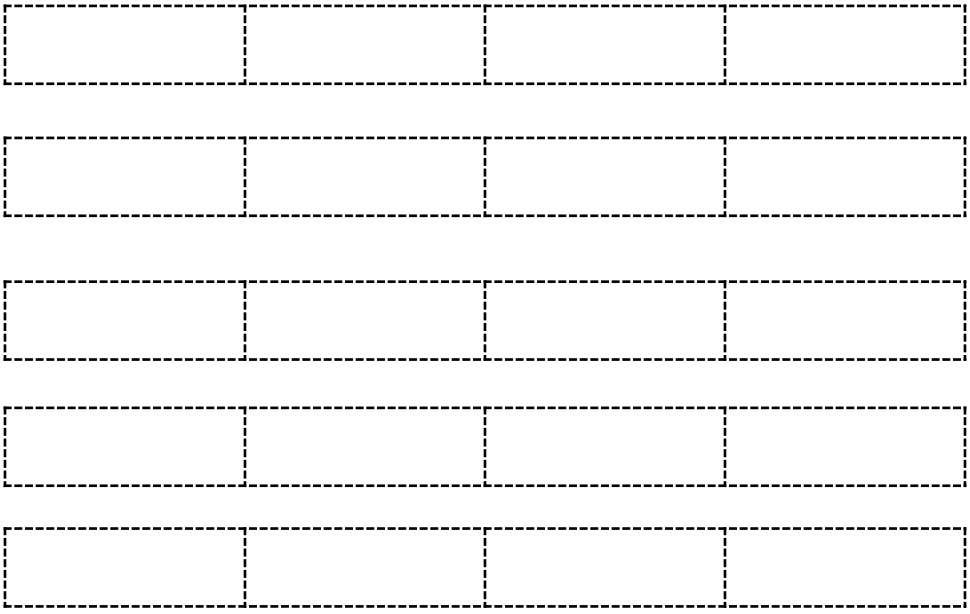
Example 1:

Scott fills a container with sugar using a bowl. The bowl holds $\frac{2}{3}$ cup of sugar. Scott uses 9 full bowls to fill the container. How many cups of sugar does the container hold?

Item Type: *Equation Editor*

Example 2:

Shade in the bars below to represent $5 \times \frac{3}{4}$.



Item Type: *GRID*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.2.4

Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.

Let Me Teach Ya! (Video Lesson)

Example 3:

Which of the following is equivalent to 3 x $\frac{1}{2}$?

a. $\frac{3}{2}$ x $\frac{1}{2}$

b. $\frac{1}{2}$ + $\frac{1}{2}$ + $\frac{1}{2}$

c. $\frac{2}{3}$

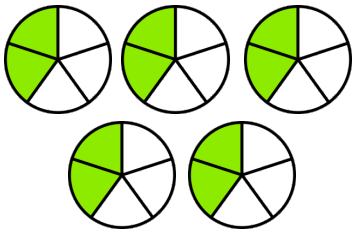
d. $\frac{1}{6}$

Item Type: *Multiple Choice*

Example 4:

Select all that are equivalent to 5 x $\frac{2}{5}$.

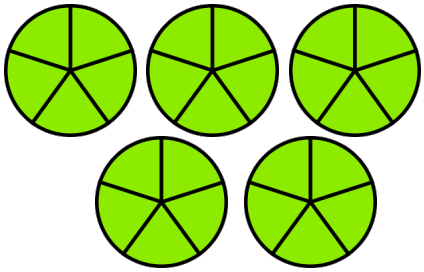
a. $\frac{10}{2}$

b. 

c. 5 + $\frac{1}{5}$ + $\frac{1}{5}$

d. $\frac{10}{5}$

e. $\frac{2}{25}$

f. 

Item Type: *Multi-Select*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.2.4

Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.

Practice Makes Improvement – Level 1

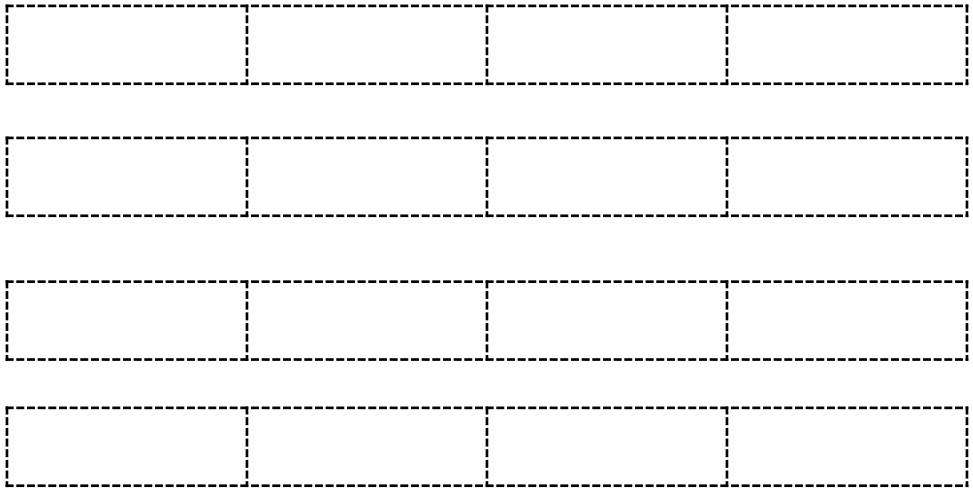
Example 1:

Scott fills a container with sugar using a bowl. The bowl holds $\frac{1}{4}$ cup of sugar. Scott uses 8 full bowls to fill the container. How many cups of sugar does the container hold?

Item Type: *Equation Editor*

Example 2:

Shade in the bars below to represent 4 x $\frac{2}{4}$.



Item Type: *GRID*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.2.4

Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.

Practice Makes Improvement – Level 1

Example 3:

Which of the following is equivalent to $7 \times \frac{1}{6}$?

a. $\frac{6}{7}$

b. $\frac{1}{42}$

c. $7\frac{1}{6}$

d. $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6}$

Item Type: *Multiple Choice*

Example 4:

Select all that are equivalent to $3 \times \frac{3}{8}$.

a. 

b. $\frac{8}{9}$

c. $1\frac{1}{8}$

d. $3 + \frac{3}{8}$

e. 

f. $\frac{9}{8}$

Item Type: *Multi-Select*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.2.4

Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.

Practice Makes Improvement – Level 2

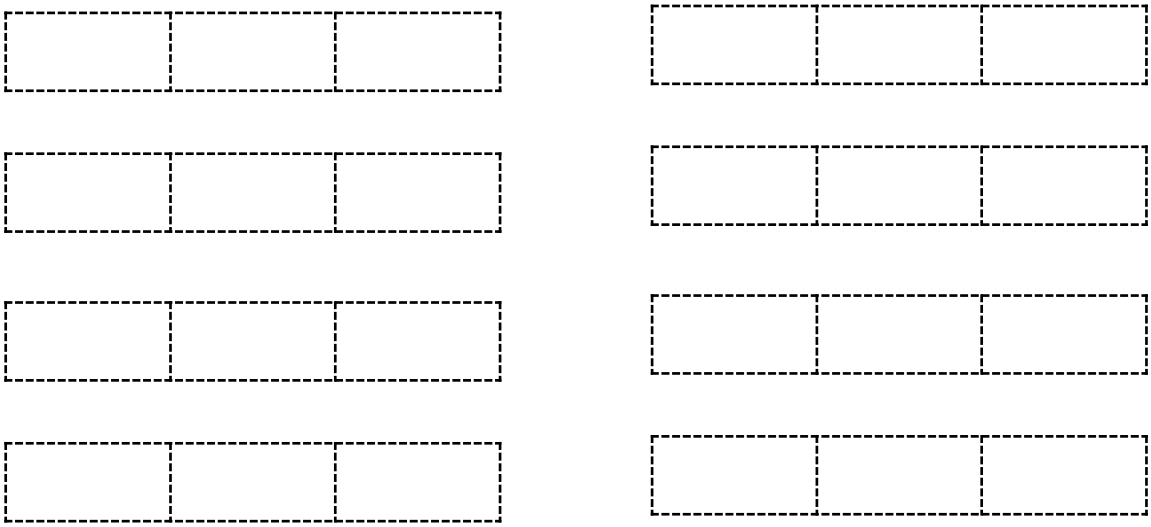
Example 1:

Nick sets a goal to exercise for $\frac{5}{6}$ hour each day. After 5 days, how many hours does Nick exercise?

Item Type: Equation Editor

Example 2:

Shade in the bars below to represent 7 x $\frac{2}{3}$.



Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.2.4

Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.

Practice Makes Improvement – Level 2

Example 3:

Which of the following is equivalent to $2 \times \frac{3}{5}$?

a. $\frac{3}{5} + \frac{2}{5}$

b. $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$

c. $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$

d. $2\frac{3}{5}$

Item Type: *Multiple Choice*

Example 4:

Select all that are equivalent to $2 \times \frac{7}{10}$.

a. $\frac{14}{10}$

b. $\frac{7}{10} + \frac{7}{10}$

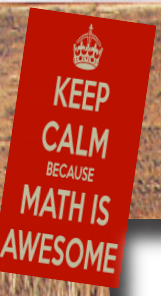
c. 

d. $2\frac{7}{10}$

e. 

f. $\frac{7}{5}$

Item Type: *Multi-Select*



Lesson 17

MAFS.4.NF.3.5

Topic:

Add Fractions with Denominators 10 and 100

How to Pass the Math FSA: 4th Grade

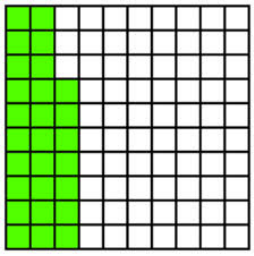
Focus: MAFS.4.NF.3.5

Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$.

Let Me Teach Ya! (Video Lesson)

Example 1:

Jenny rakes leaves in her yard. The fraction that Jenny has raked so far is represented by the shaded model shown.



Jenny will rake $\frac{4}{10}$ more of the yard before she takes a break.

What fraction of the yard will Jenny rake when she takes a break?

Item Type: Equation Editor

Example 2:

Which fraction is equivalent to $\frac{2}{10}$?

a. $\frac{10}{2}$

c. $\frac{20}{100}$

b. $\frac{2}{100}$

d. $\frac{100}{20}$

Item Type: Multiple Choice

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.5

Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10}+\frac{4}{100}=\frac{34}{100}$.

Let Me Teach Ya! (Video Lesson)

Example 3:

Match each equation with the correct missing addend.

	$\frac{6}{10}$	$\frac{7}{10}$	$\frac{3}{10}$
$\square+\frac{18}{100}=\frac{48}{100}$			
$\frac{26}{100}+\square=\frac{86}{100}$			
$\square+\frac{23}{100}=\frac{93}{100}$			

Item Type: Matching Item

Example 4:

Select all the fractions that are equivalent to the sum of the equation below.

$$\frac{40}{100}+\frac{1}{10}=\square$$

a. $\frac{41}{100}$

b. $\frac{50}{100}$

c. $\frac{41}{10}$

d. $\frac{5}{10}$

e. $4\frac{1}{10}$

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

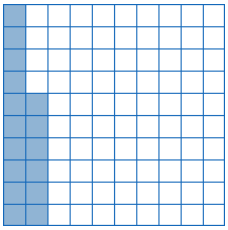
Focus: MAFS.4.NF.3.5

Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$.

Practice Makes Improvement – Level 1

Example 1:

Jenny rakes leaves in her yard. The fraction that Jenny has raked so far is represented by the shaded model shown.



Jenny will rake $\frac{8}{10}$ more of the yard before she takes a break.

What fraction of the yard will Jenny rake when she takes a break?

Item Type: Equation Editor

Example 2:

Which fraction is equivalent to $\frac{9}{10}$?

a. $\frac{90}{100}$

c. $\frac{100}{90}$

b. $\frac{10}{9}$

d. $\frac{9}{100}$

Item Type: Multiple Choice

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.5

Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10}+\frac{4}{100}=\frac{34}{100}$.

Practice Makes Improvement – Level 1

Example 3:

Match each equation with the correct missing addend.

	$\frac{6}{10}$	$\frac{7}{10}$	$\frac{3}{10}$
$\square + \frac{34}{100} = \frac{94}{100}$			
$\frac{17}{100} + \square = \frac{87}{100}$			
$\square + \frac{35}{100} = \frac{65}{100}$			

Item Type: Matching Item

Example 4:

Select all the fractions that are equivalent to the sum of the equation below.

$$\frac{20}{100} + \frac{4}{10} = \square$$

a. $\frac{19}{100}$

b. $\frac{19}{10}$

c. $1\frac{9}{10}$

d. $\frac{6}{10}$

e. $\frac{60}{100}$

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.5

Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$.

Practice Makes Improvement – Level 2

Example 1:

Create a fraction with a denominator of 100 that is equivalent to $\frac{3}{10}$.

Item Type: Equation Editor

Example 2:

Which fraction is equivalent to $\frac{8}{10}$?

a. $\frac{10}{8}$

c. $\frac{100}{80}$

b. $\frac{8}{100}$

d. $\frac{80}{100}$

Item Type: Multiple Choice

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.5

Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10}+\frac{4}{100}=\frac{34}{100}$.

Practice Makes Improvement – Level 2

Example 3:

Match each equation with the correct missing addend.

	$\frac{4}{10}$	$\frac{5}{10}$	$\frac{9}{10}$
$\square+\frac{15}{100}=\frac{65}{100}$			
$\frac{7}{100}+\square=\frac{97}{100}$			
$\square+\frac{23}{100}=\frac{63}{100}$			

Item Type: Matching Item

Example 4:

Select all the fractions that are equivalent to sum of the equation below.

$$\frac{2}{10}+\frac{60}{100}=\square$$

a. $\frac{80}{100}$

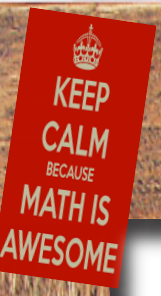
b. $\frac{62}{100}$

c. $\frac{8}{10}$

d. $\frac{62}{10}$

e. $6\frac{1}{5}$

Item Type: Multi-Select



Lesson 18

MAFS.4.NF.3.6

Topic:

Decimal Notation for Fractions

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.6

Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

Let Me Teach Ya! (Video Lesson)

Example 1:

What is the value of $2\frac{4}{10}$ in decimal form?

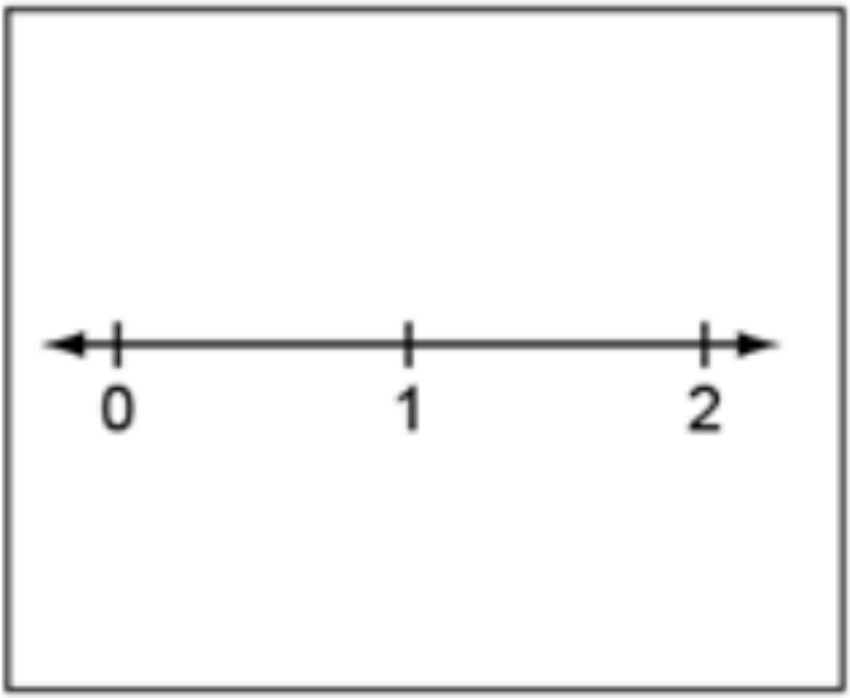
Item Type: *Equation Editor*

Example 2:

Two values are shown.

0.34
0.97

Plot and label the points on the number line below.



Item Type: *GRID*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.6

Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

Let Me Teach Ya! (Video Lesson)

Example 3:

Match each fraction with the equivalent decimal notation.

	0.5	0.05
$\frac{5}{100}$		
$\frac{50}{100}$		
$\frac{5}{10}$		

Item Type: Matching Item

Example 4:

Which decimal is equivalent to $\frac{6}{100}$?

a. 60
b. 6
c. 0.6
d. 0.06

Item Type: Multiple Choice

Example 5:

Select all the fractions that are equivalent to 0.7.

a. $\frac{70}{10}$

b. $\frac{7}{10}$

c. $\frac{10}{7}$

d. $\frac{70}{100}$

e. $\frac{100}{7}$

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.6

Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

Practice Makes Improvement – Level 1

Example 1:

What is the value of $4\frac{3}{10}$ in decimal form?

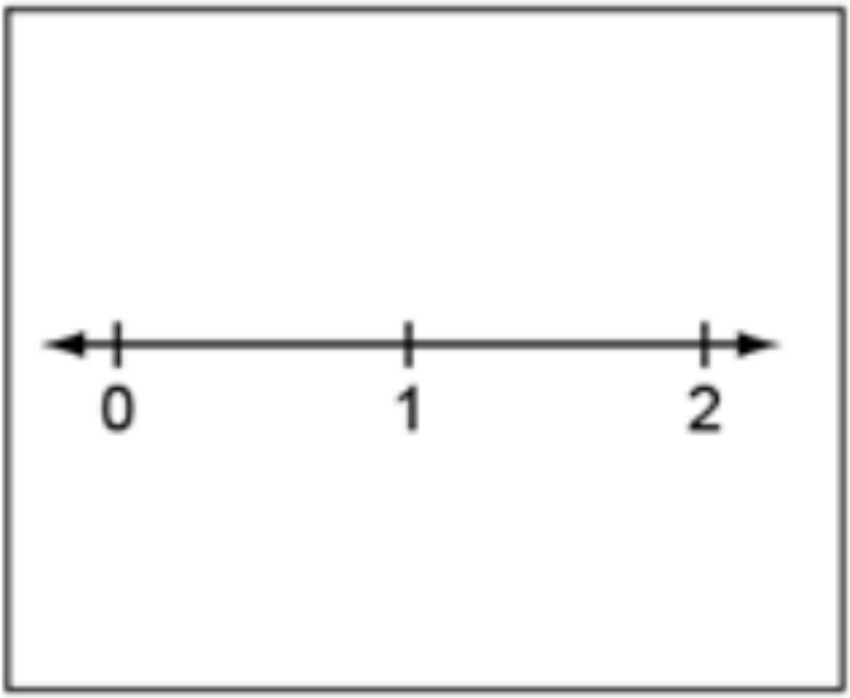
Item Type: Equation Editor

Example 2:

Two values are shown.

0.45
0.12

Plot and label the points on the number line below.



Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.6

Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

Practice Makes Improvement – Level 1

Example 3:

Match each fraction with the equivalent decimal notation.

	0.8	0.08
$\frac{8}{100}$		
$\frac{8}{10}$		
$\frac{80}{100}$		

Item Type: Matching Item

Example 4:

Which decimal is equivalent to $\frac{1}{10}$?

a. 10
b. 1
c. 0.1
d. 0.01

Item Type: Multiple Choice

Example 5:

Select all the fractions that are equivalent to 0.2.

a. $\frac{2}{100}$

b. $\frac{2}{10}$

c. $\frac{20}{100}$

d. $\frac{10}{2}$

e. $\frac{100}{2}$

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.6

Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

Practice Makes Improvement – Level 2

Example 1:

What is the value of $5\frac{75}{100}$ in decimal form?

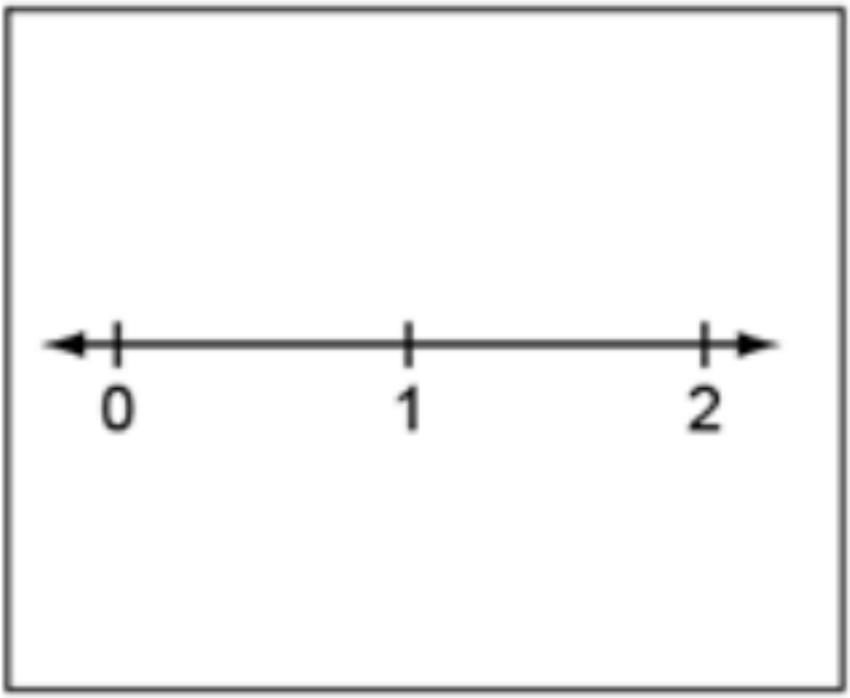
Item Type: *Equation Editor*

Example 2:

Two values are shown.

1.54
0.86

Plot and label the points on the number line below.



Item Type: *GRID*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.6

Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

Practice Makes Improvement – Level 2

Example 3:

Match each fraction with the equivalent decimal notation.

	1.9	1.09
$1\frac{9}{100}$		
$1\frac{90}{100}$		
$1\frac{9}{10}$		

Item Type: Matching Item

Example 4:

Which decimal is equivalent to $3\frac{32}{100}$?

a. 3.32
b. 3.032
c. 33.2
d. 332.1

Item Type: Multiple Choice

Example 5:

Select all the fractions that are equivalent to 0.1.

a. $\frac{1}{10}$

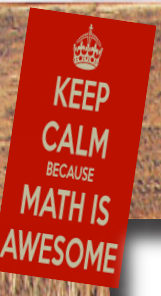
b. $\frac{100}{10}$

c. $\frac{100}{100}$

d. $\frac{10}{10}$

e. $\frac{10}{100}$

Item Type: Multi-Select



Lesson 19

MAFS.4.NF.3.7

Topic:

Compare Decimals

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.7

Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Let Me Teach Ya! (Video Lesson)

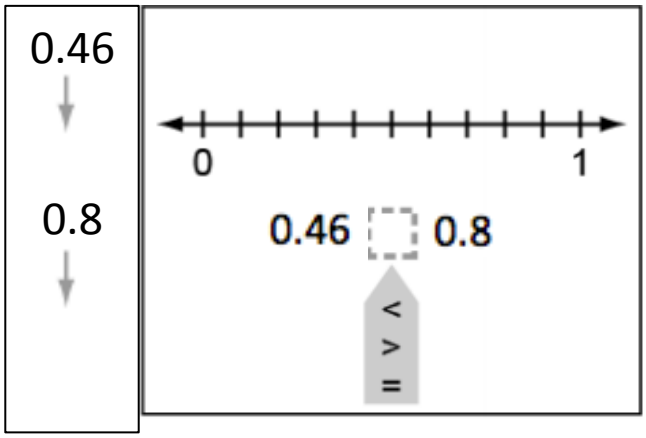
Example 1:

George wrote down a number that is greater than 0.34 but less than 0.42. What is one number George could have written down?

Item Type: Equation Editor

Example 2:

A number line is shown.



A. Drag each number to its correct location on the number line.

B. Select the correct comparison symbol.

Item Type: GRID

Example 3:

Select the correct symbol for each comparison.

	<	>	=
2.45 ☐ 2.7			
2.9 ☐ 2.89			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.7

Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Let Me Teach Ya! (Video Lesson)

Example 4:

A comparison is shown.

$3.\square > 3.46$

Which number belongs in the missing box?

a. 2
b. 3
c. 4
d. 5

Item Type: Multiple Choice

Example 5:

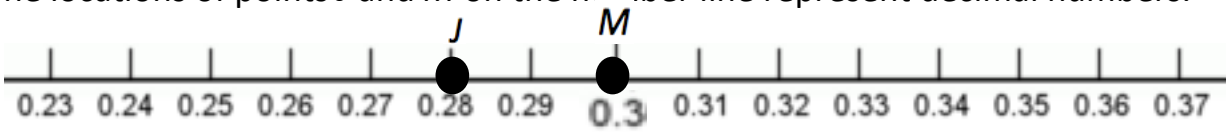
Mr. Carter measures two pencils. The first pencil was 6.8 centimeters. The second pencil was 7.28 centimeters. Select all the true comparisons of the pencil lengths.

a. $6.8 < 7.28$
b. $6.8 = 7.28$
c. $6.8 > 7.28$
d. $7.28 > 6.8$
e. $7.28 = 6.8$
f. $7.28 < 6.8$

Item Type: Multi-Select

Example 6:

The locations of points *J* and *M* on the number line represent decimal numbers.



Explain why the value of point *M* is greater than the value of point *J*.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.7

Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Practice Makes Improvement – Level 1

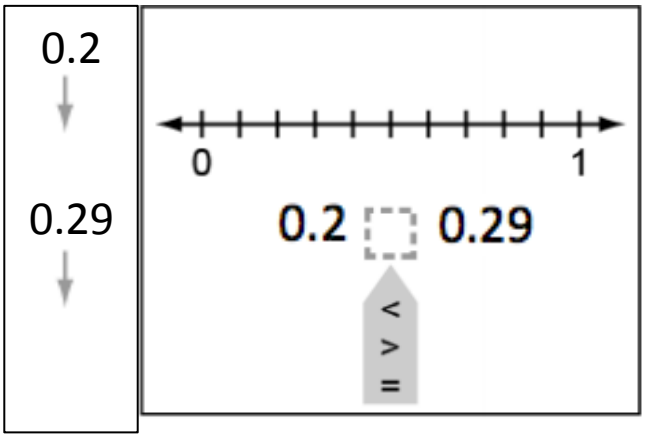
Example 1:

Tai wrote down a number that is greater than 1.6 but less than 1.72. What is one number Tai could have written down?

Item Type: Equation Editor

Example 2:

A number line is shown.



A. Drag each number to its correct location on the number line.

B. Select the correct comparison symbol.

Item Type: GRID

Example 3:

Select the correct symbol for each comparison.

	<	>	=
5.1 ☐ 5.11			
6.93 ☐ 7.13			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.7

Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Practice Makes Improvement – Level 1

Example 4:

A comparison is shown.

$8.\square < 8.45$

Which number belongs in the missing box?

a. 4
b. 5
c. 6
d. 7

Item Type: Multiple Choice

Example 5:

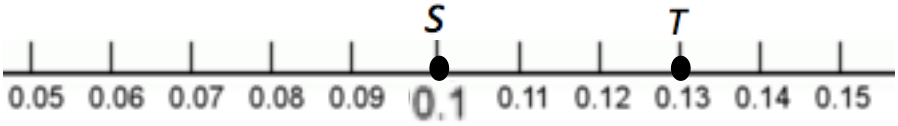
Mr. Carter measures two pencils. The first pencil was 3.2 centimeters. The second pencil was 2.75 centimeters. Select all the true comparisons of the pencil lengths.

a. $3.2 < 2.75$
b. $3.2 = 2.75$
c. $3.2 > 2.75$
d. $2.75 > 3.2$
e. $2.75 = 3.2$
f. $2.75 < 3.2$

Item Type: Multi-Select

Example 6:

The locations of points *S* and *T* on the number line represent decimal numbers.



Explain why the value of point *T* is greater than the value of point *S*.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.7

Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Practice Makes Improvement – Level 2

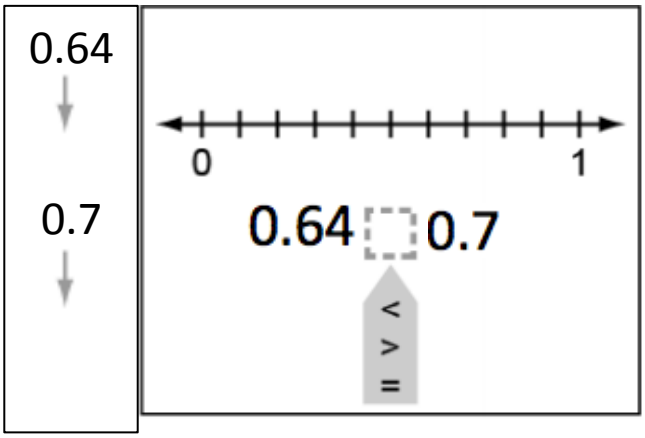
Example 1:

James wrote down a number that is greater than 10.12 but less than 10.2. What is one number James could have written down?

Item Type: Equation Editor

Example 2:

A number line is shown.



A. Drag each number to its correct location on the number line.

B. Select the correct comparison symbol.

Item Type: GRID

Example 3:

Select the correct symbol for each comparison.

	<	>	=
8.21 ☐ 8.3			
8.6 ☐ 8.60			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.NF.3.7

Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Practice Makes Improvement – Level 2

Example 4:

A comparison is shown.

$$9.\square = 9.50$$

Which number belongs in the missing box?

a. 3
b. 4
c. 5
d. 6

Item Type: Multiple Choice

Example 5:

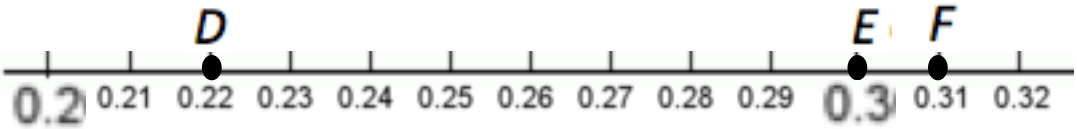
Ms. McCarthy runs 3.43 miles on Monday. On Tuesday, she runs 3.4 miles. Select all the true comparisons of the distances she ran on Monday and Tuesday.

a. $3.43 < 3.4$
b. $3.43 = 3.4$
c. $3.43 > 3.4$
d. $3.4 < 3.43$
e. $3.43 = 3.4$
f. $3.43 < 3.4$

Item Type: Multi-Select

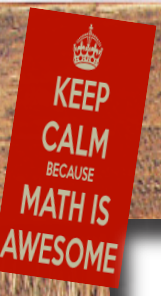
Example 6:

The locations of points *D*, *E, and F* on the number line represent decimal numbers.



Explain why the value of point *D* is less than the value of point *E*.

Item Type: Open Response



Lesson 20

MAFS.4.MD.1.1

Topic:

Relative Sizes, Converting Units

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.1

Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.

Let Me Teach Ya! (Video Lesson)

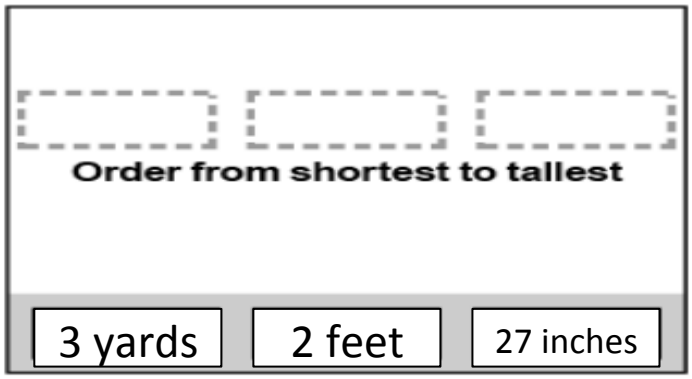
Example 1:

Reed found a lizard that was 8 centimeters long. What is the length of the lizard in millimeters?

Item Type: Equation Editor

Example 2:

The heights of three boxes are shown. Drag one measurement into each open box to order the heights from shortest to tallest.



Item Type: GRID

Example 3:

Match each measurement, in ounces, with the correct measurement, in pounds.

	1 pound	4 pounds	3 pounds
48 ounces			
16 ounces			
64 ounces			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.1

Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.

Let Me Teach Ya! (Video Lesson)

Example 4:

Selena uses 8 liters of water to make lemonade. What is the capacity of water in milliliters?

a. 8,000 mL
b. 8 mL
c. 800 mL
d. 80,000 mL

Item Type: Multiple Choice

Example 5:

Select all the measurements that are about 1 inch long.

a. the length of a notebook
b. length of the tip of your thumb to the first knuckle
c. the width of a dollar bill
d. the length of a quarter
e. the height of a cereal box

Item Type: Multi-Select

Example 6:

The table shows the time it takes to complete two tasks, in hours. Complete the table to show the minutes and seconds it takes to complete the two tasks

	Time in Seconds	Time in Minutes	Time in Hours
Task 1			3
Task 2			5

Item Type: Table Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.1

Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.

Practice Makes Improvement – Level 1

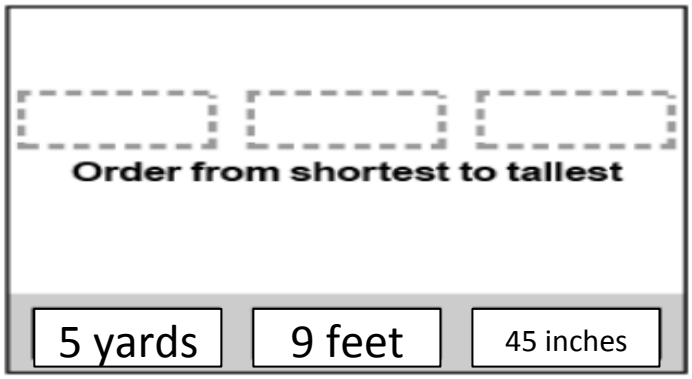
Example 1:

Reed found an iguana that was 36 centimeters long. What is the length of the lizard in millimeters?

Item Type: Equation Editor

Example 2:

The heights of three boxes are shown. Drag one measurement into each open box to order the heights from shortest to tallest.



Item Type: GRID

Example 3:

Match each measurement, in ounces, with the correct measurement, in pounds.

	2 pound	5 pounds	10 pounds
80 ounces			
160 ounces			
32 ounces			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.1

Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.

Practice Makes Improvement – Level 1

Example 4:

Selena uses 5 liters of water to make lemonade. What is the capacity of water in milliliters?

a. 50 mL
b. 500 mL
c. 5,000 mL
d. 50,000 mL

Item Type: Multiple Choice

Example 5:

Select all the measurements that are about 1 foot long.

a. the length of a notebook
b. the height of a classroom
c. the width of a dollar bill
d. the length of a quarter
e. the height of a cereal box

Item Type: Multi-Select

Example 6:

The table shows the time it takes to complete two tasks, in hours. Complete the table to show the minutes and seconds it takes to complete the two tasks

	Time in Seconds	Time in Minutes	Time in Hours
Task 1			1
Task 2			2

Item Type: Table Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.1

Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.

Practice Makes Improvement – Level 2

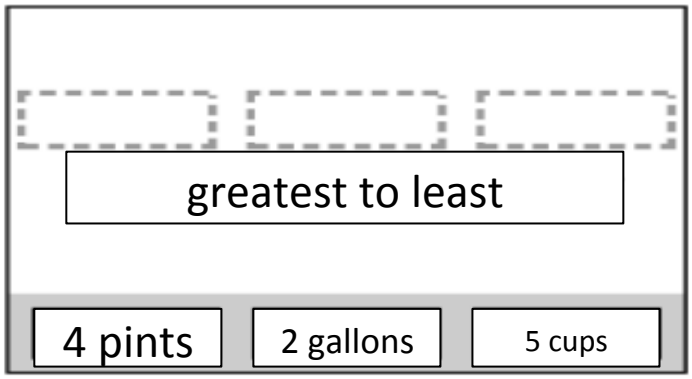
Example 1:

Rahma has a textbook with a mass of 2 kilograms. What is the mass of the textbook in grams?

Item Type: Equation Editor

Example 2:

The capacity of three containers is shown below. Drag one measurement into each open box to order the capacity from greatest to least.



Item Type: GRID

Example 3:

Match each measurement, in pints, with the correct measurement, in cups.

	12 cups	10 cups	8 cups	6 cups
3 pints				
4 pints				
5 pints				

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.1

Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.

Practice Makes Improvement – Level 2

Example 4:

Jakari uses 6,000 miligrams of paper clips for a project. What is the mass of the paper clips in grams?

a. 6,000 g
b. 600 g
c. 60 g
d. 6 g

Item Type: Multiple Choice

Example 5:

Select all the activities that take about 1 minute to complete.

a. snap your fingers one time
b. throw a baseball in the air
c. watch a movie at the theater
d. solve a word problem in math class
e. reheat food in the microwave

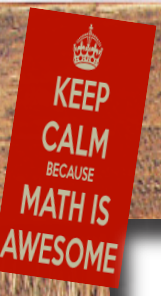
Item Type: Multi-Select

Example 6:

The table shows the time it takes to complete two tasks, in hours. Complete the table to show the minutes and seconds it takes to complete the two tasks

	Time in Seconds	Time in Minutes	Time in Hours
Task 1			7
Task 2			9

Item Type: Table Item



Lesson 21

MAFS.4.MD.1.2

Topic:

Distance, Time, and Money Word Problems

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.2

Use the four operations to solve word problems involving distances, intervals of time, and money, including problems involving simple fractions or decimals. Represent fractional quantities of distance and intervals of time using linear models.

Let Me Teach Ya! (Video Lesson)

Example 1:

Harriet is making cookies. She needs $\frac{1}{4}$ cup of butter for each batch of cookies. One stick of butter is $\frac{1}{2}$ cup. How many sticks of butter does Harriet need to make 6 batches of cookies?

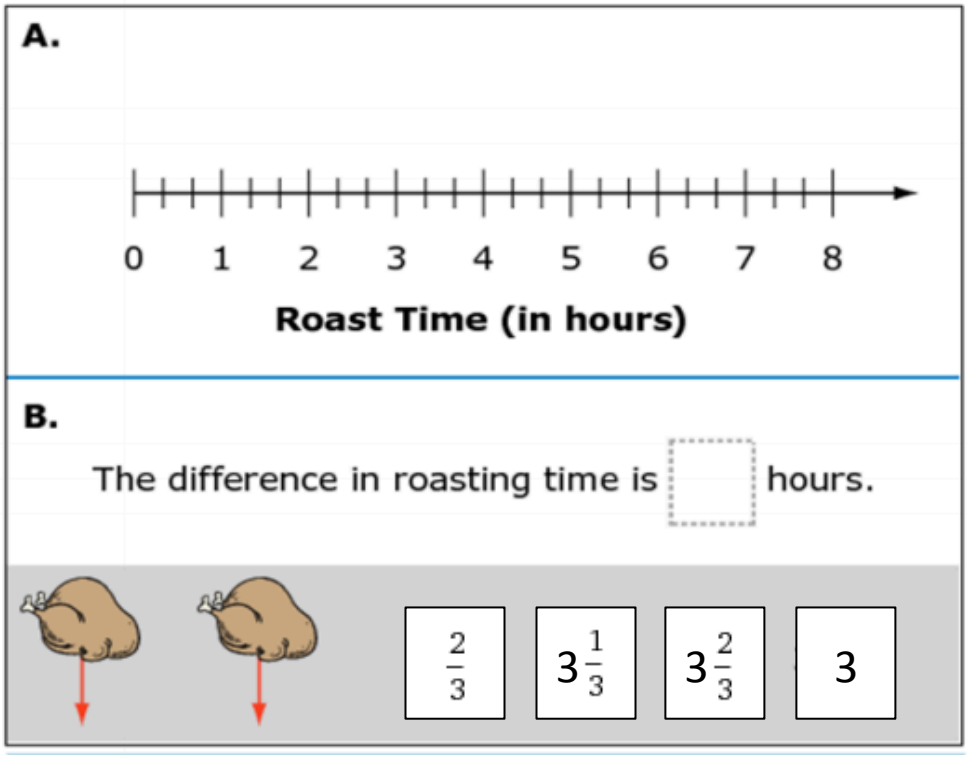
Item Type: Equation Editor

Example 2:

Mrs. Gray is roasting two chickens. A chicken must roast for $\frac{1}{3}$ of an hour for each pound. One chicken weighs 9 pounds, and the other chicken weighs 11 pounds.

A. Drag each chicken to the number line to correctly show how long each will take to roast.

B. Drag the difference in the roasting times to the box.



Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.2

Use the four operations to solve word problems involving distances, intervals of time, and money, including problems involving simple fractions or decimals. Represent fractional quantities of distance and intervals of time using linear models.

Let Me Teach Ya! (Video Lesson)

Example 3:

A sports drink costs $2.20 each. Nathan uses a $5 bill to buy 2 sports drinks. How much change should Nathan receive?

a. $0.40
b. $0.60
c. $2.20
d. $4.40

Item Type: Multiple Choice

Example 4:

Mark threw a ball 23 yards. His brother, Tai, threw a ball 20 yards. How many more feet did the Mark throw the ball than Tai?

Item Type: Equation Editor

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.2

Use the four operations to solve word problems involving distances, intervals of time, and money, including problems involving simple fractions or decimals. Represent fractional quantities of distance and intervals of time using linear models.

Practice Makes Improvements – Level 1

Example 1:

Harriet is making cookies. She needs $\frac{1}{4}$ cup of butter for each batch of cookies. One stick of butter is $\frac{1}{2}$ cup. How many sticks of butter does Harriet need to make 16 batches of cookies?

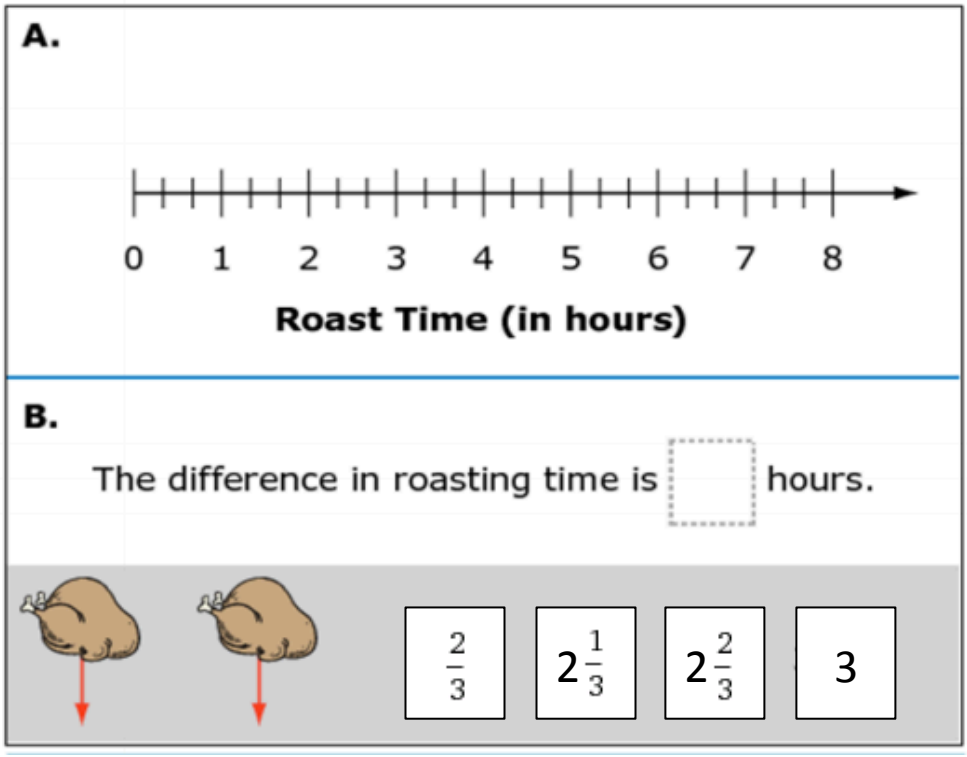
Item Type: Equation Editor

Example 2:

Mrs. Gray is roasting two chickens. A chicken must roast for $\frac{1}{3}$ of an hour for each pound. One chicken weighs 12 pounds, and the other chicken weighs 20 pounds.

A. Drag each chicken to the number line to correctly show how long each will take to roast.

B. Drag the difference in the roasting times to the box.



Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.2

Use the four operations to solve word problems involving distances, intervals of time, and money, including problems involving simple fractions or decimals. Represent fractional quantities of distance and intervals of time using linear models.

Practice Makes Improvements – Level 1

Example 3:

A bag of apples costs $3.25 each. Nathan uses a $20 bill to buy 4 bags of apples. How much change should Nathan receive?

a. $7.50
b. $7.25
c. $7.00
d. $6.75

Item Type: Multiple Choice

Example 4:

Mark threw a ball 45 yards. His brother, Tai, threw a ball 53 yards. How many more feet did the Tai throw the ball than Mark?

Item Type: Equation Editor

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.2

Use the four operations to solve word problems involving distances, intervals of time, and money, including problems involving simple fractions or decimals. Represent fractional quantities of distance and intervals of time using linear models.

Practice Makes Improvements – Level 2

Example 1:

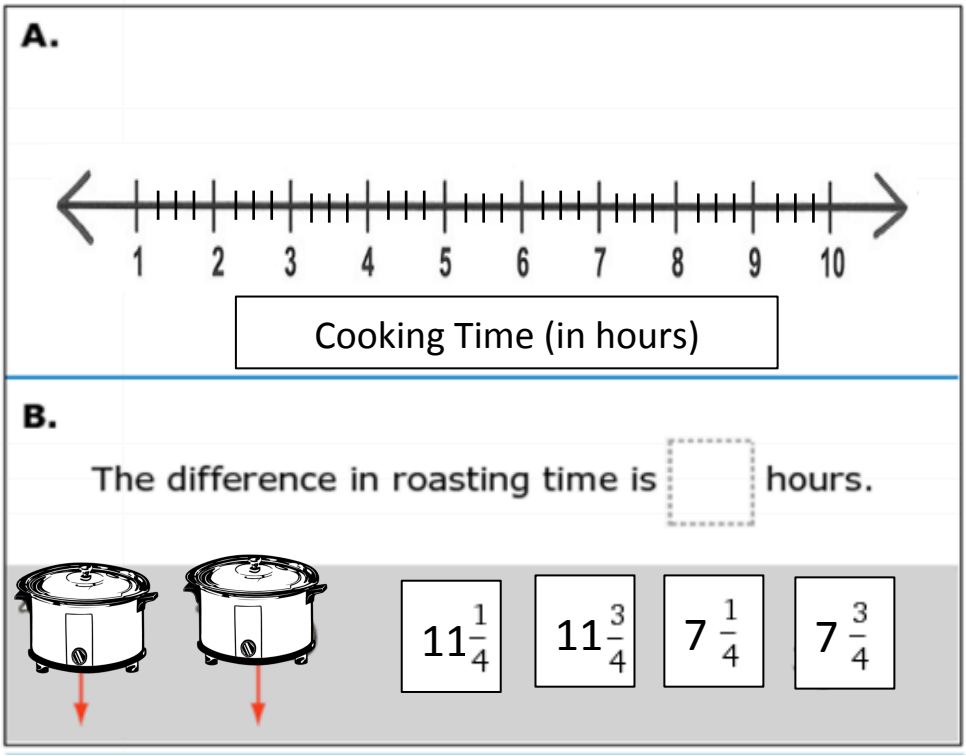
David is making lemonade. He needs $\frac{1}{2}$ cup of sugar for container of lemonade. One pack of sugar has 8 cups of sugar. How many cups of packs does David need to make 32 containers of sugar?

Item Type: Equation Editor

Example 2:

Mr. McGee is using two crockpots to prepare for dinner. In one crockpot, he is cooks an 8-pound roast beef which takes $\frac{1}{4}$ hour for each pound to cook. In the other crockpot, he cooks an 13-pound ham which takes $\frac{3}{4}$ hour for each pound to cook.

A. Drag crockpot to the number line to correctly show how long each meal to cook.
B. Drag the total amount of cooking times to the box.



Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.2

Use the four operations to solve word problems involving distances, intervals of time, and money, including problems involving simple fractions or decimals. Represent fractional quantities of distance and intervals of time using linear models.

Practice Makes Improvements – Level 2

Example 3:

A pack of bottled water costs $4.75 each. Sarah uses a $10 bill to buy 2 packs of water. How much change should Sarah receive?

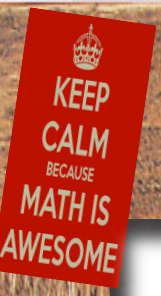
a. $0.15
b. $0.25
c. $0.50
d. $0.75

Item Type: Multiple Choice

Example 4:

Tracy drank 1 gallon of water. Laura drank 2 gallons of water. How many more cups of water did Laura drink than Tracy?

Item Type: Equation Editor



Lesson 22

MAFS.4.MD.I.3

Topic:

Area and Perimeter

How to Pass the Math FSA: 4th Grade

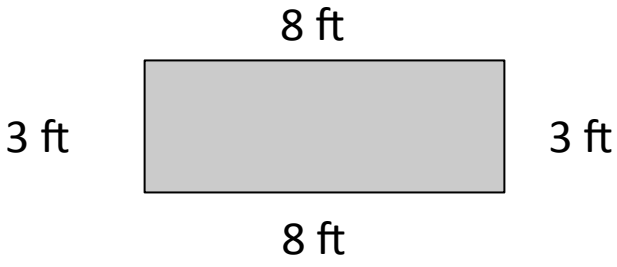
Focus: MAFS.4.MD.1.3

Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

Let Me Teach Ya! (Video Lesson)

Example 1:

A rectangular rug, with dimensions given in feet (ft), is shown.



A. What is the area, in square feet, of the rug?

B. What is the perimeter, in feet, of the rug?

Item Type: Equation Editor

Example 2:

Diego needs rug with an area of 540 square feet. Select all the sizes of rugs that Diego could choose.

a. 9 feet x 60 feet
b. 50 feet x 40 feet
c. 5 feet x 40 feet
d. 50 feet x 4 feet
e. 90 feet x 6 feet

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

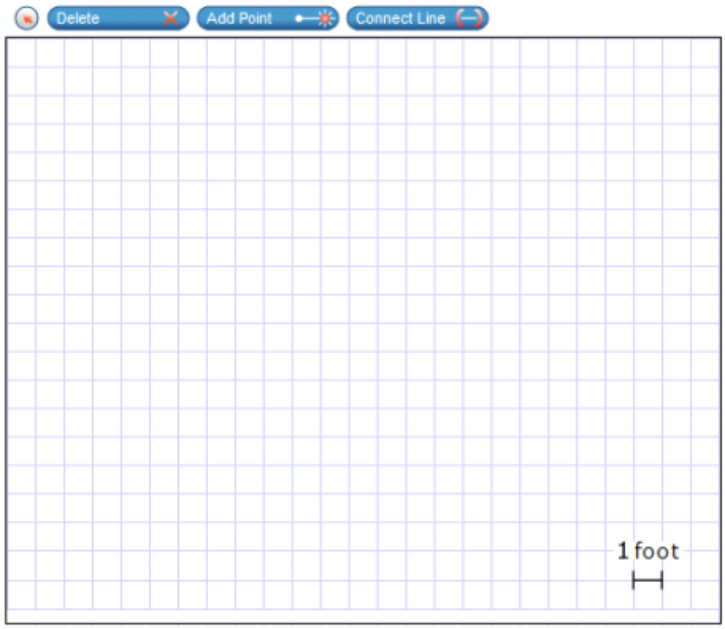
Focus: MAFS.4.MD.1.3

Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

Let Me Teach Ya! (Video Lesson)

Example 3:
The perimeter of a rectangular rug is 18 feet.

Draw a rectangle that shows one possible size of the rug.



Item Type: Equation Editor

Example 4:
A rectangle has a length of 12 feet and a perimeter of 40 feet.

What is the width, in feet, of the rectangle?

a. 8 feet
b. 12 feet
c. 16 feet
d. 28 feet

Item Type: Multiple Choice

How to Pass the Math FSA: 4th Grade

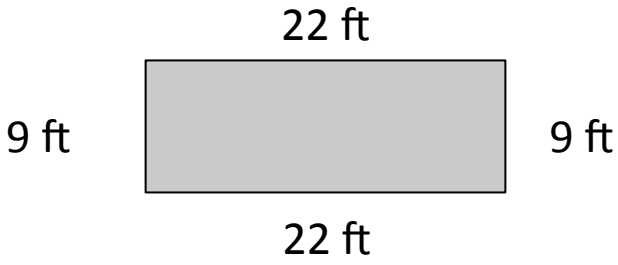
Focus: MAFS.4.MD.1.3

Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

Practice Makes Improvement – Level 1

Example 1:

A rectangular rug, with dimensions given in feet (ft), is shown.



A. What is the area, in square feet, of the rug?

B. What is the perimeter, in feet, of the rug?

Item Type: Equation Editor

Example 2:

Diego needs rug with an area of 360 square feet. Select all the sizes of rugs that Diego could choose.

a. 3 feet x 60 feet
b. 36 feet x 10 feet
c. 9 feet x 40 feet
d. 80 feet x 4 feet
e. 90 feet x 4 feet

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.3

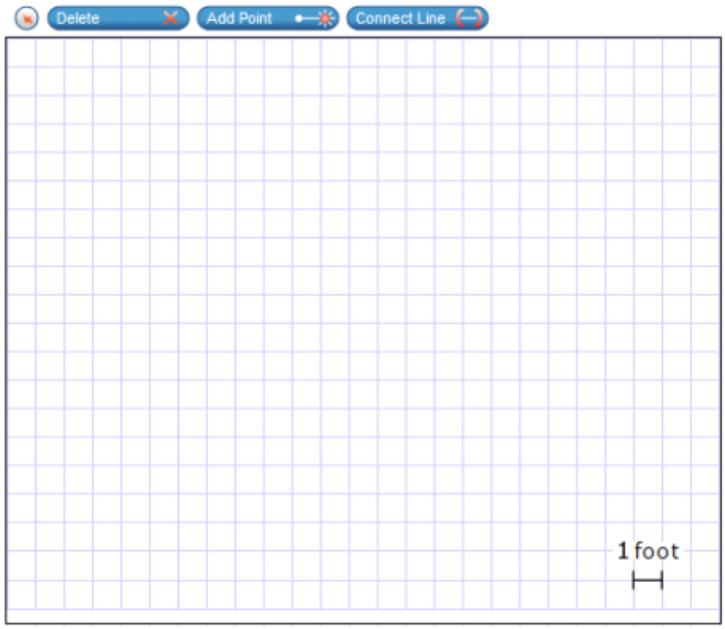
Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

Practice Makes Improvement – Level 1

Example 3:

The perimeter of a rectangular rug is 24 feet.

Draw a rectangle that shows one possible size of the rug.



Item Type: Equation Editor

Example 4:

A rectangle has a length of 22 feet and a perimeter of 54 feet.

What is the width, in feet, of the rectangle?

a. 5 feet
b. 10 feet
c. 16 feet
d. 32 feet

Item Type: Multiple Choice

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.3

Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

Practice Makes Improvement – Level 2

Example 1:

A rectangular rug, with dimensions given in feet (ft), is shown.

A. What is the area, in square feet, of the rug?

B. What is the perimeter, in feet, of the rug?

Item Type: Equation Editor

Example 2:

Smiegal needs a floor with an area of 1,000 square feet. Select all the sizes of floors that Smiegal could choose.

a. 50 feet x 20 feet
b. 100 feet x 1 feet
c. 4 feet x 25 feet
d. 100 feet x 10 feet
e. 10 feet x 10 feet

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.1.3

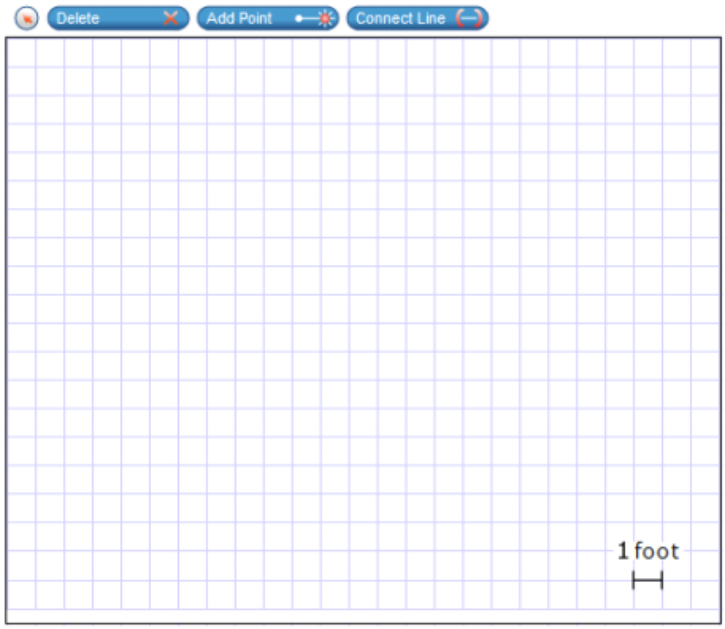
Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

Practice Makes Improvement – Level 2

Example 3:

The perimeter of a rectangular platform is 32 feet.

Draw a rectangle that shows one possible size of the platform.



Item Type: Equation Editor

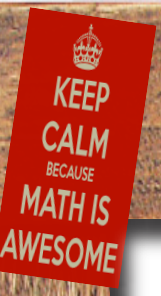
Example 4:

A rectangle has a width of 4 feet and a perimeter of 22 feet.

What is the area, in square feet, of the rectangle?

a. 8 square feet
b. 14 square feet
c. 18 square feet
d. 28 square feet

Item Type: Multiple Choice



Lesson 23

MAFS.4.MD.2.4

Topic:

Line Plots with Fractions

How to Pass the Math FSA: 4th Grade

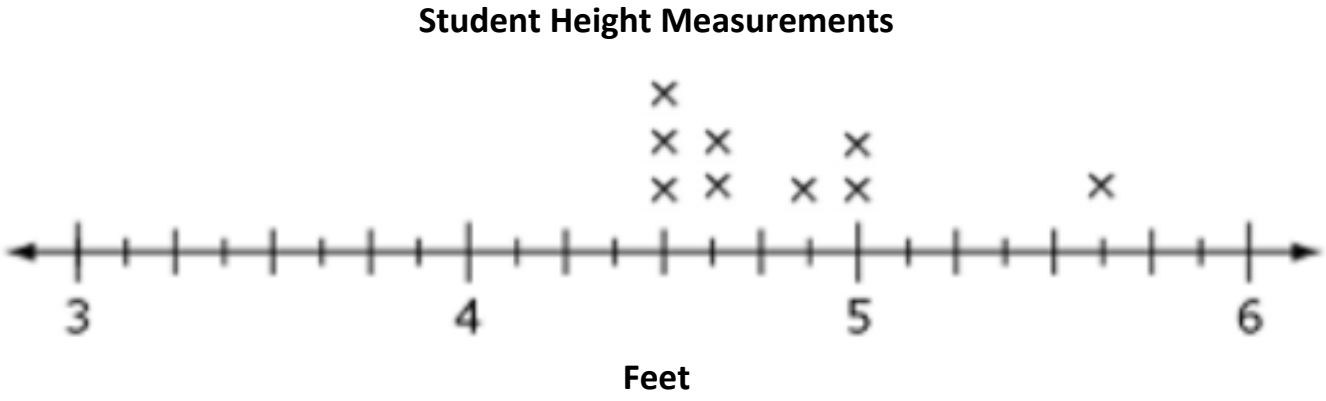
Focus: MAFS.4.MD.2.4

Make a line plot to display a data set of measurements in fractions of a unit $\left(\frac{1}{2}, \frac{1}{4}, \frac{1}{8}\right)$. Solve problems involving addition and subtraction of fractions by using information presented in line plots.

Let Me Teach Ya! (Video Lesson)

Example 1:

A line plot with student heights is given.



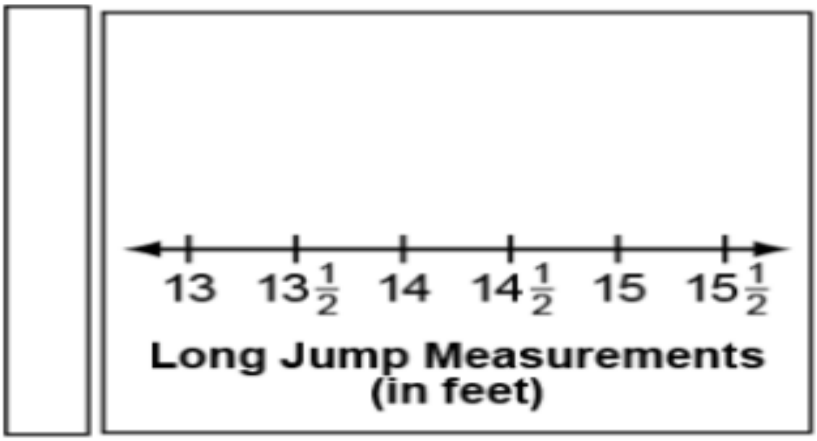
Greg is $\frac{4}{8}$ foot shorter than the tallest person. How tall, in feet, is Greg?

Item Type: Equation Editor

Example 2:

Hercules recorded the results for his top four long jumps. The total length of all his jumps was 55 feet.

Using the number line below, create a possible line plot for this data.



Item Type: GRID

How to Pass the Math FSA: 4th Grade

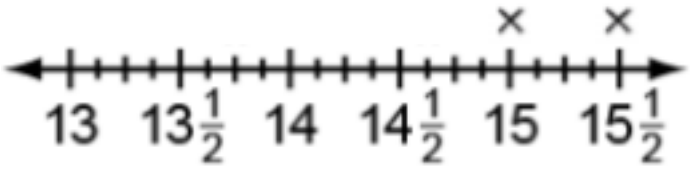
Focus: MAFS.4.MD.2.4

Make a line plot to display a data set of measurements in fractions of a unit $\left(\frac{1}{2}, \frac{1}{4}, \frac{1}{8}\right)$. Solve problems involving addition and subtraction of fractions by using information presented in line plots.

Let Me Teach Ya! (Video Lesson)

Example 3:

Carly recorded the time it took her to read four books. The total time it took for Carly to read all of the books was 59 hours. The time it took for Carly to read the first 2 books is shown on the number line.



Time to Read Books (in Hours)

Which of the following could be the times for the remaining two books?

a. 14 hours and 14 hours
b. 14 hours and 15 hours
c. 14 hours and $14\frac{1}{2}$ hours
d. $14\frac{1}{2}$ hours and $14\frac{1}{2}$ hours

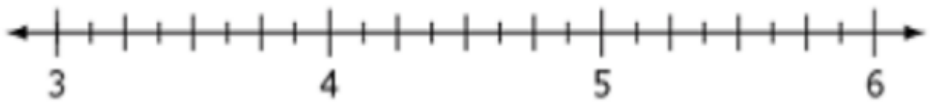
Item Type: Multiple Choice

Example 4:

Andrew measures the lengths of leaves and records the data in the chart below.

Measurements (in inches)
3
$5\frac{1}{2}$
$4\frac{1}{4}$
$5\frac{1}{2}$
$4\frac{1}{4}$
$4\frac{3}{4}$

Create a correct line plot of the data.



Measurements (in inches)

Item Type: GRID

How to Pass the Math FSA: 4th Grade

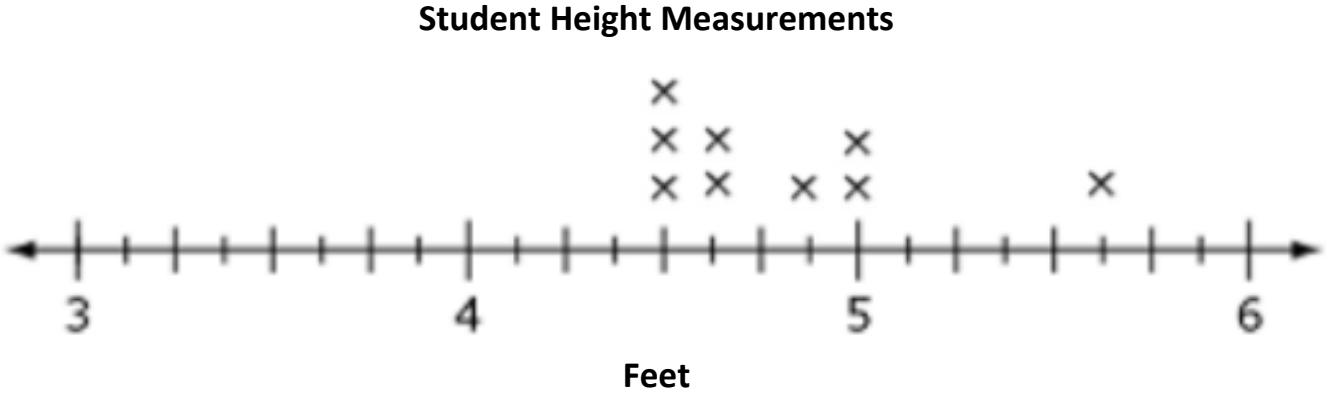
Focus: MAFS.4.MD.2.4

Make a line plot to display a data set of measurements in fractions of a unit $\left(\frac{1}{2}, \frac{1}{4}, \frac{1}{8}\right)$. Solve problems involving addition and subtraction of fractions by using information presented in line plots.

Practice Makes Improvement – Level 1

Example 1:

A line plot with student heights is given.



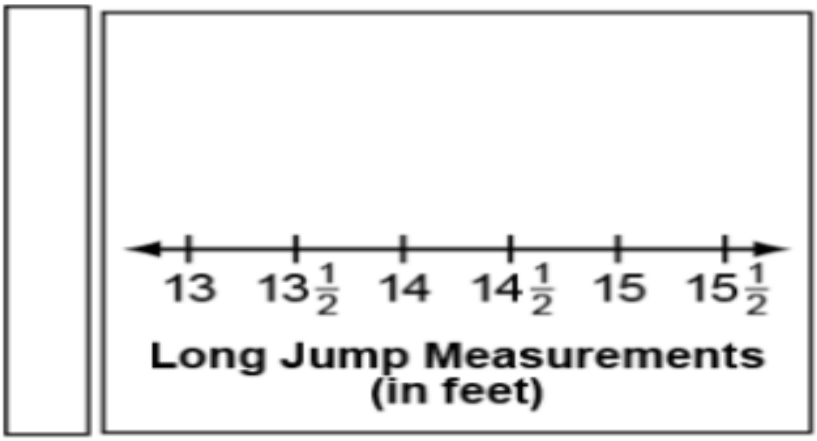
Greg is $\frac{1}{2}$ foot taller than the shortest person. How tall, in feet, is Greg?

Item Type: Equation Editor

Example 2:

Hercules recorded the results for his top four long jumps. The total length of all his jumps was 53 feet.

Using the number line below, create a possible line plot for this data.



Item Type: GRID

How to Pass the Math FSA: 4th Grade

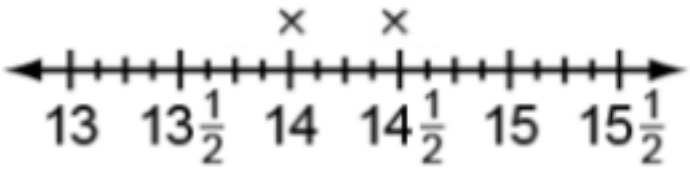
Focus: MAFS.4.MD.2.4

Make a line plot to display a data set of measurements in fractions of a unit $\left(\frac{1}{2}, \frac{1}{4}, \frac{1}{8}\right)$. Solve problems involving addition and subtraction of fractions by using information presented in line plots.

Practice Makes Improvement – Level 1

Example 3:

Carly recorded the time it took her to read four books. The total time it took for Carly to read all of the books was 56 hours. The time it took for Carly to read the first 2 books is shown on the number line.



Time to Read Books (in Hours)

Which of the following could be the times for the remaining two books?

a. $13\frac{1}{2}$ hours and 14 hours
b. $13\frac{1}{2}$ hours and $14\frac{1}{2}$ hours
c. 14 hours and 14 hours
d. $13\frac{1}{2}$ hours and 15 hours

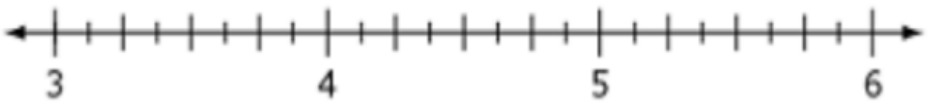
Item Type: Multiple Choice

Example 4:

Andrew measures the lengths of leaves and records the data in the chart below.

Measurements (in inches)
3
$3\frac{1}{2}$
$4\frac{1}{4}$
$4\frac{1}{2}$
$5\frac{1}{4}$
$5\frac{3}{4}$

Create a correct line plot of the data.



Measurements (in inches)

Item Type: GRID

How to Pass the Math FSA: 4th Grade

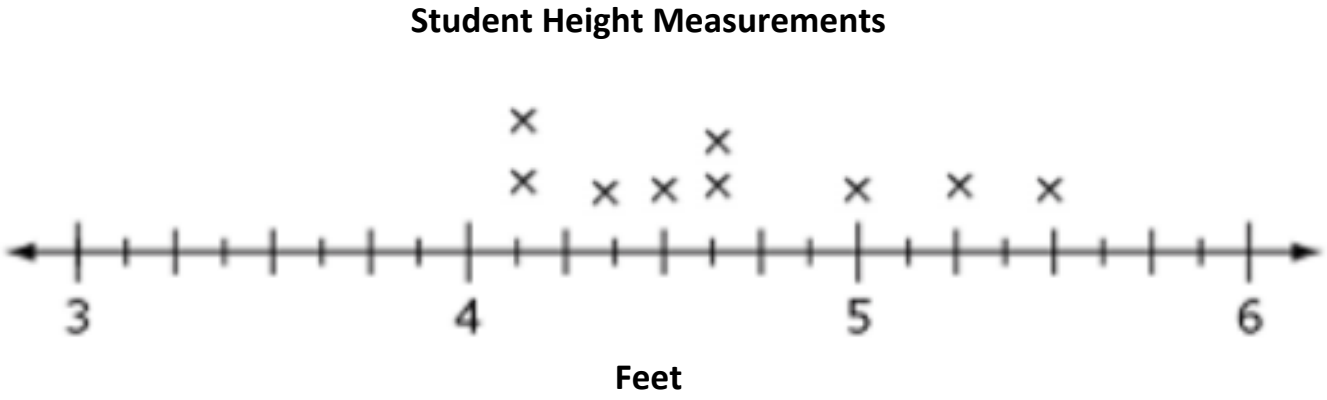
Focus: MAFS.4.MD.2.4

Make a line plot to display a data set of measurements in fractions of a unit $\left(\frac{1}{2}, \frac{1}{4}, \frac{1}{8}\right)$. Solve problems involving addition and subtraction of fractions by using information presented in line plots.

Practice Makes Improvement – Level 2

Example 1:

A line plot with student heights is given.



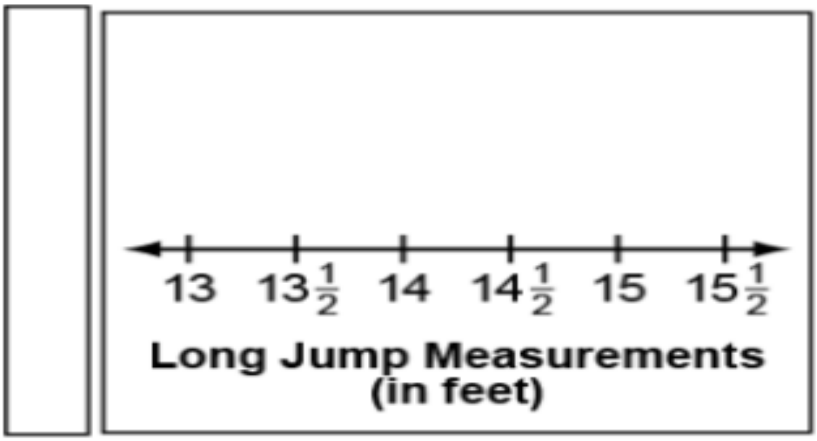
Greg is $\frac{1}{8}$ foot taller than the second shortest person. How tall, in feet, is Greg?

Item Type: Equation Editor

Example 2:

Hercules recorded the results for his top four long jumps. The total length of all his jumps was $54\frac{1}{2}$ feet.

Using the number line below, create a possible line plot for this data.



Item Type: GRID

How to Pass the Math FSA: 4th Grade

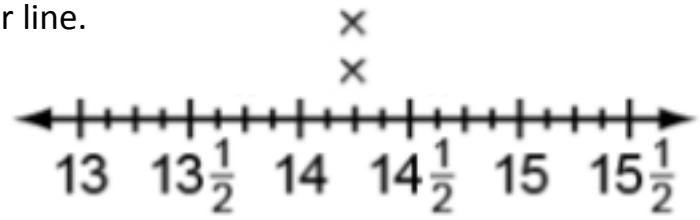
Focus: MAFS.4.MD.2.4

Make a line plot to display a data set of measurements in fractions of a unit $\left(\frac{1}{2}, \frac{1}{4}, \frac{1}{8}\right)$. Solve problems involving addition and subtraction of fractions by using information presented in line plots.

Practice Makes Improvement – Level 2

Example 3:

Carly recorded the time it took her to read four books. The total time it took for Carly to read all of the books was 57 hours. The time it took for Carly to read the first 2 books is shown on the number line.



Time to Read Books (in Hours)

Which of the following could be the times for the remaining two books?

a. 14 hours and 14 hours
b. $14\frac{1}{4}$ hours and $14\frac{3}{4}$ hours
c. 14 hours and $14\frac{3}{4}$ hours
d. $13\frac{3}{4}$ hours and $14\frac{3}{4}$ hours

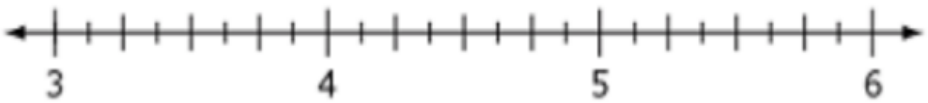
Item Type: Multiple Choice

Example 4:

Andrew measures the lengths of leaves and records the data in the chart below.

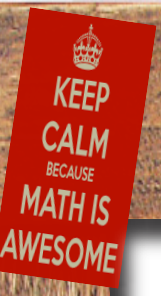
Measurements (in inches)
$3\frac{1}{4}$
$3\frac{1}{2}$
$4\frac{1}{8}$
$4\frac{3}{8}$
$5\frac{1}{4}$
$5\frac{3}{4}$

Create a correct line plot of the data.



Measurements (in inches)

Item Type: GRID



Lesson 24

MAFS.4.MD.3.5
MAFS.4.MD.3.6

Topic:
Angles

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.3.5

Recognize angles as geometric shapes formed wherever two rays share a common endpoint. Understand concepts of angle measurement.

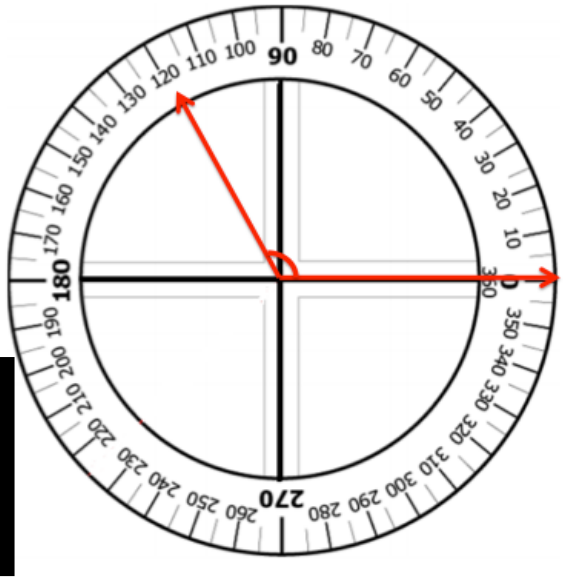
Also Assesses: MAFS.4.MD.3.6

Measure angles in whole-number degrees using a protractor. Sketch angles of specific measure.

Let Me Teach Ya! (Video Lesson)

Example 1:

An angle is shown.



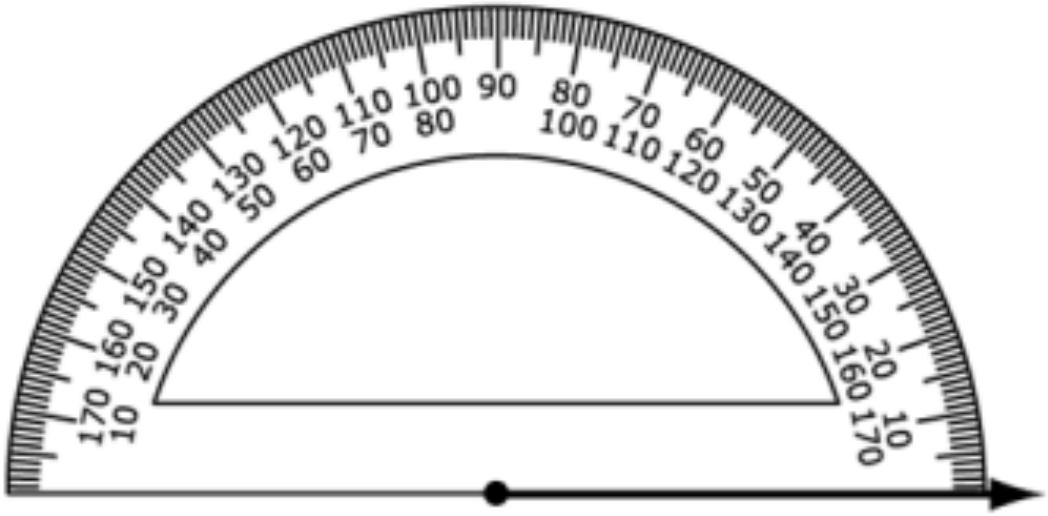
What is the measure, in degrees, of the angle?

Item Type: Equation Editor

Example 2:

Angle *M* measures 45°. One ray of angle *M* is shown.

Draw another ray on the protractor that will create angle *M*.



Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.3.5

Recognize angles as geometric shapes formed wherever two rays share a common endpoint. Understand concepts of angle measurement.

Also Assesses: MAFS.4.MD.3.6

Measure angles in whole-number degrees using a protractor. Sketch angles of specific measure.

Let Me Teach Ya! (Video Lesson)

Example 3: Select the category of measure for each angle.

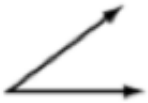
	Less than 90°	Between 90° and 180°
		
		
		

Item Type: Matching Item

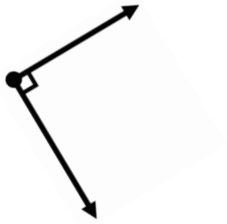
Example 4:
Which is an angle?

a. 

b. 

c. 

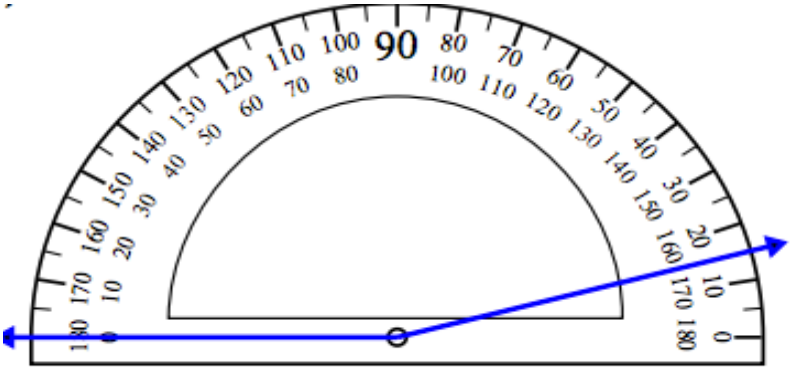
d. 

e. 

Item Type: Multi-Select

Example 5:
What is the measure, in degrees (°), of angle *T*?

a. 15°
b. 165°
c. 175°
d. 180°



Item Type: Multiple Choice

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.3.5

Recognize angles as geometric shapes formed wherever two rays share a common endpoint. Understand concepts of angle measurement.

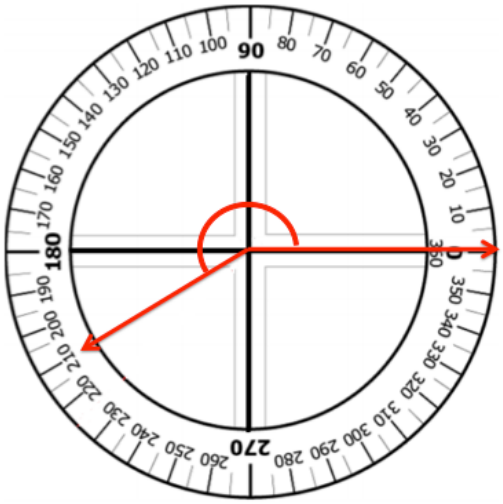
Also Assesses: MAFS.4.MD.3.6

Measure angles in whole-number degrees using a protractor. Sketch angles of specific measure.

Practice Makes Improvement – Level 1

Example 1:

An angle is shown.



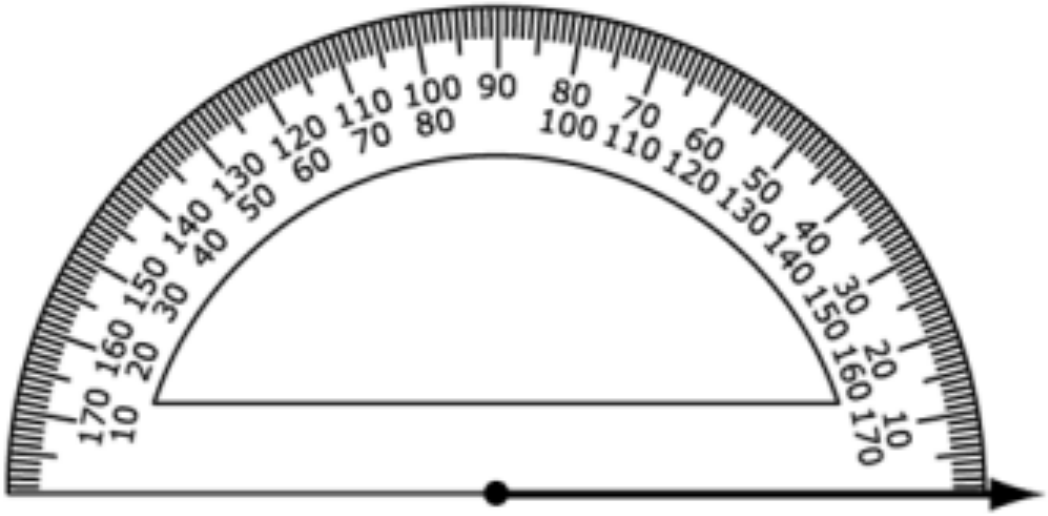
What is the measure, in degrees, of the angle?

Item Type: Equation Editor

Example 2:

Angle *R* measures 65°. One ray of angle *R* is shown.

Draw another ray on the protractor that will create angle *R*.



Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.3.5

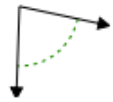
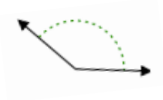
Recognize angles as geometric shapes formed wherever two rays share a common endpoint. Understand concepts of angle measurement.

Also Assesses: MAFS.4.MD.3.6

Measure angles in whole-number degrees using a protractor. Sketch angles of specific measure.

Practice Makes Improvement – Level 1

Example 3: Select the category of measure for each angle.

	Less than 90°	Between 90° and 180°
		
		
		

Item Type: Matching Item

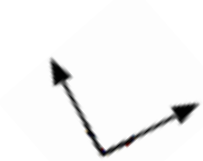
Example 4:

Which is an acute angle?

a. 

b. 

c. 

d. 

e. 

Item Type: Multi-Select

Example 5:

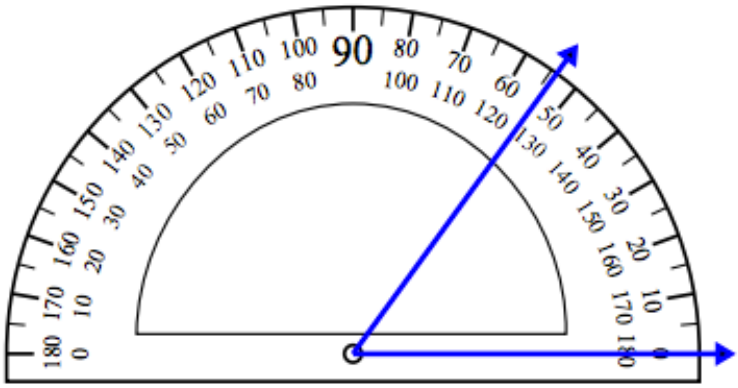
What is the measure, in degrees (°), of angle *U*?

a. 50°

b. 54°

c. 57°

d. 125°



Item Type: Multiple Choice

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.3.5

Recognize angles as geometric shapes formed wherever two rays share a common endpoint. Understand concepts of angle measurement.

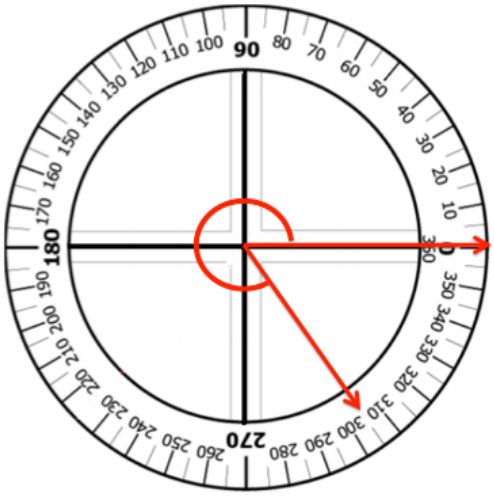
Also Assesses: MAFS.4.MD.3.6

Measure angles in whole-number degrees using a protractor. Sketch angles of specific measure.

Practice Makes Improvement – Level 2

Example 1:

An angle is shown.



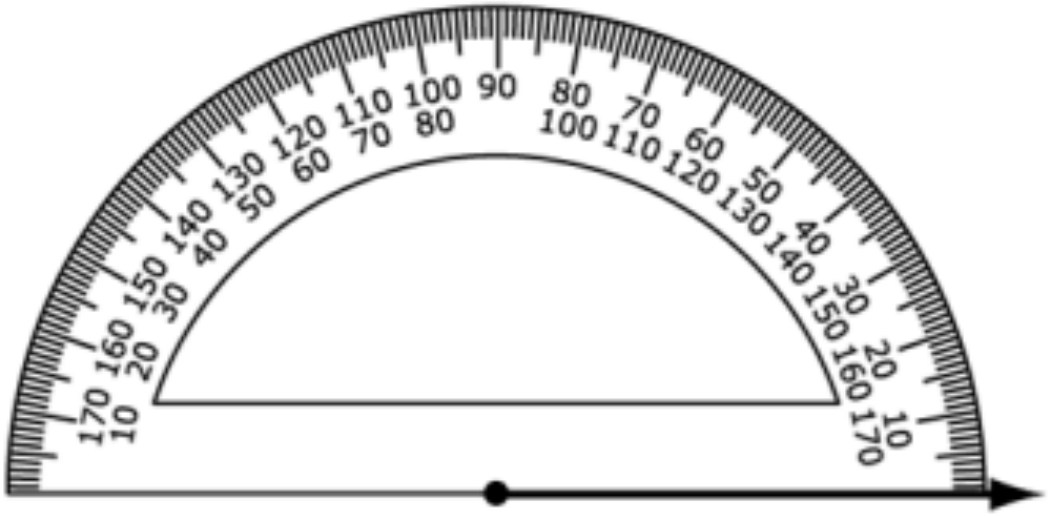
What is the measure, in degrees, of the angle?

Item Type: Equation Editor

Example 2:

Angle *S* measures 102°. One ray of angle *S* is shown.

Draw another ray on the protractor that will create angle *S*.



Item Type: GRID

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.3.5

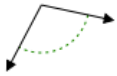
Recognize angles as geometric shapes formed wherever two rays share a common endpoint. Understand concepts of angle measurement.

Also Assesses: MAFS.4.MD.3.6

Measure angles in whole-number degrees using a protractor. Sketch angles of specific measure.

Practice Makes Improvement – Level 2

Example 3: Select the category of measure for each angle.

	Less than 90°	Between 90° and 180°
		
		
		

Item Type: Matching Item

Example 4:
Which is an obtuse angle?

a. 

b. 

c. 

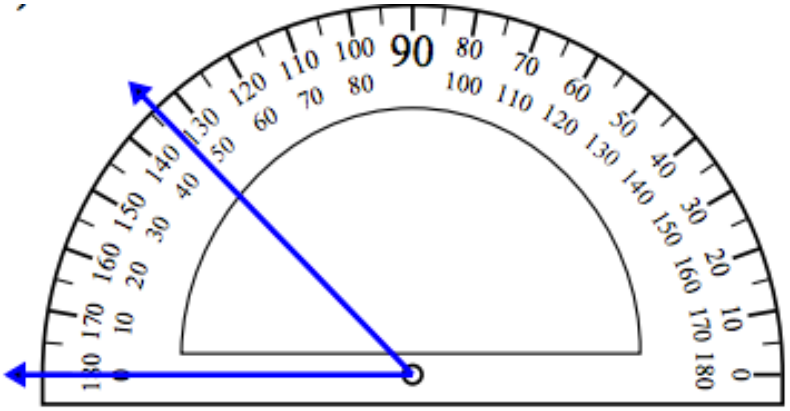
d. 

e. 

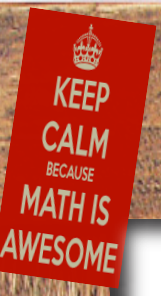
Item Type: Multi-Select

Example 5:
What is the measure, in degrees (°), of angle *Q*?

a. 45°
b. 100°
c. 135°
d. 180°



Item Type: Multiple Choice



Lesson 25

MAFS.4.MD.3.7

Topic:

Find Unknown Angles (Through Addition and Subtraction)

How to Pass the Math FSA: 4th Grade

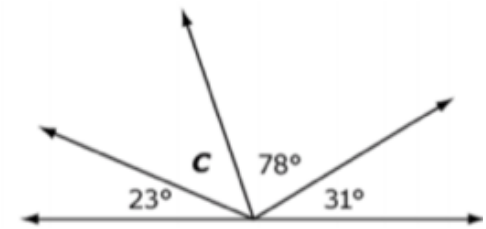
Focus: MAFS.4.MD.3.7

Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world ad mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Let Me Teach Ya! (Video Lesson)

Example 1:

A diagram is shown.



A. Create an equation that can be used to find the measure of angle *C*.

B. What is the measure of angle *C*?

Item Type: Equation Editor

Example 2:

Valerie is adding angles to create other angles.

Select the angles that Valerie can use to create a 143° and a 56°angle.

	24°	87°	32°	15°
143°				
56°				

Item Type: Matching Item

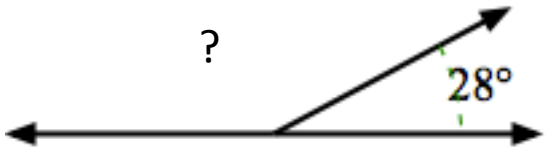
How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.MD.3.7

Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world ad mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Let Me Teach Ya! (Video Lesson)

Example 3:
What is the measure of the unknown angle?



a. 28°
b. 62°
c. 152°
d. 208°

Item Type: Multiple Choice

Example 4:
Adrian is adding angles to create other angles. He starts with an angle that measures 56°. Select all the possible ways that he could have added angles to reach a sum of 180°.

a. 56° + 24° +100°
b. 56° + 36° + 98°
c. 56° + 45° + 79°
d. 56° + 73° + 51°
e. 56° + 124° +5°

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

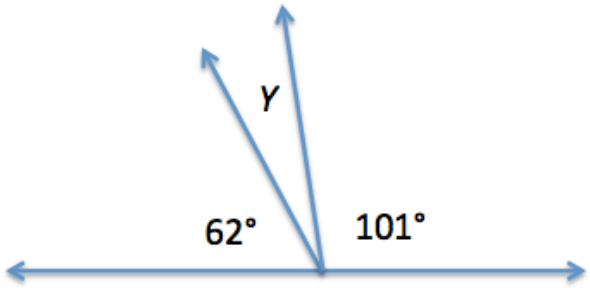
Focus: MAFS.4.MD.3.7

Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world ad mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Practice Makes Improvement – Level 1

Example 1:

A diagram is shown.



A. Create an equation that can be used to find the measure of angle *Y*.

B. What is the measure of angle *Y*?

Item Type: Equation Editor

Example 2:

Valerie is adding angles to create other angles.

Select the angles that Valerie can use to create a 157° and a 92°angle.

	29°	40°	25°	63°
157°				
92°				

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

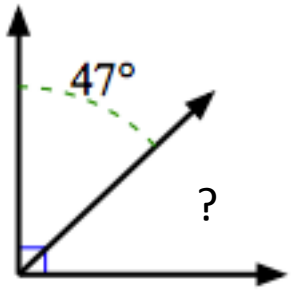
Focus: MAFS.4.MD.3.7

Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world ad mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Practice Makes Improvement – Level 1

Example 3:

What is the measure of the unknown angle?



a. 43°
b. 53°
c. 133°
d. 143°

Item Type: Multiple Choice

Example 4:

Adrian is adding angles to create other angles. He starts with an angle that measures 65°. Select all the possible ways that he could have added angles to reach a sum of 180°.

a. 65° + 35° +75°
b. 65° + 36° + 79°
c. 65° + 37° + 78°
d. 65° + 100° + 15°
e. 65° + 90° + 35°

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

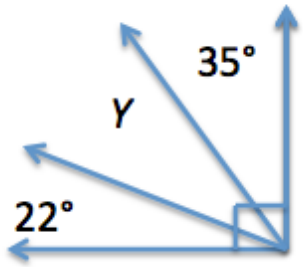
Focus: MAFS.4.MD.3.7

Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world ad mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Practice Makes Improvement – Level 2

Example 1:

A diagram is shown.



A. Create an equation that can be used to find the measure of angle *Y*.

B. What is the measure of angle *Y*?

Item Type: Equation Editor

Example 2:

Valerie is adding angles to create other angles.

Select the angles that Valerie can use to create a 100° and a 73°angle.

	8°	65°	14°	21°
100°				
73°				

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

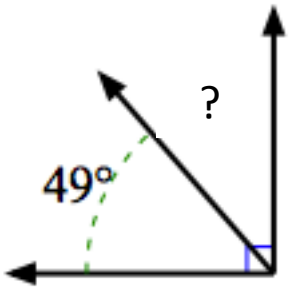
Focus: MAFS.4.MD.3.7

Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world ad mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Practice Makes Improvement – Level 2

Example 3:

What is the measure of the unknown angle?



a. 131°
b. 141°
c. 31°
d. 41°

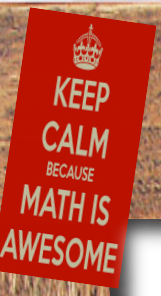
Item Type: Multiple Choice

Example 4:

Adrian is adding angles to create other angles. He starts with an angle that measures 32°. Select all the possible ways that he could have added angles to reach a sum of 180°.

a. 32° + 58° + 100°
b. 32° + 64° + 75° + 13°
c. 32° + 48° + 52° + 48°
d. 32° + 40° + 8° + 100°
e. 32° + 32° + 32° + 32° + 32° + 20°

Item Type: Multi-Select



Lesson 26

MAFS.4.G.1.1

Topic:

Draw and Identify Geometric Terms

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.G.1.1

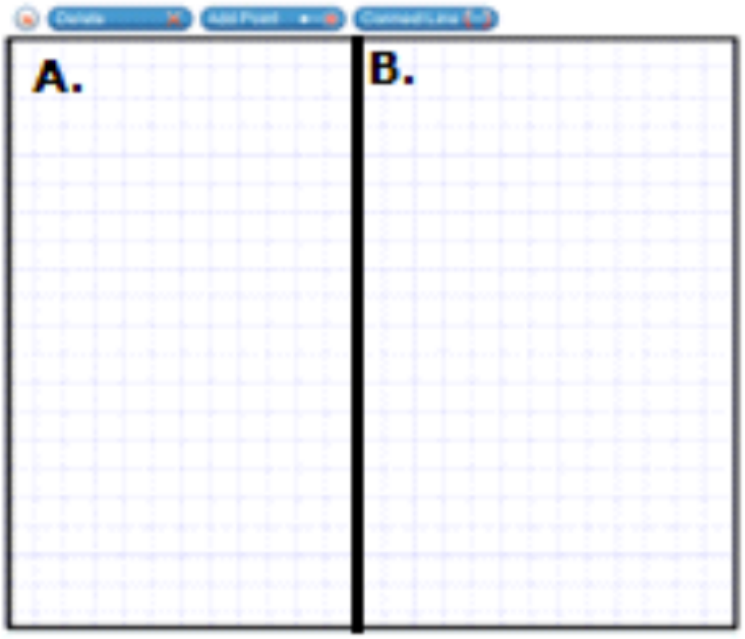
Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Let Me Teach Ya! (Video Lesson)

Example 1:

A. Draw an acute angle.

B. Draw an obtuse angle.



Item Type: GRID

Example 2:

Select all the attributes that apply to each set of lines.

		
Contains Parallel Lines		
Contains Perpendicular Lines		
Contains Acute Angle		
Contains Obtuse Angle		

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.G.1.1

Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Let Me Teach Ya! (Video Lesson)

Example 3:

Which angle is acute?

a. 

b. 

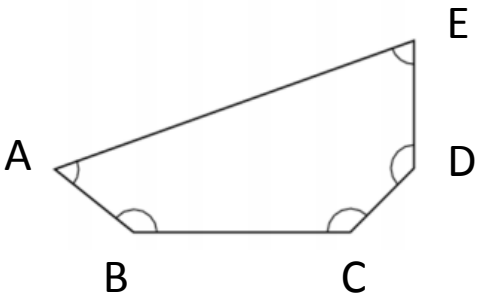
c. 

d 

Item Type: *Multiple Choice*

Example 4:

A figure is shown.



Select all of the angles that are obtuse.

a. A
b. B
c. C
d. D
e. E

Item Type: *Multi-Select*

Example 5:

A figure is shown.

Describe the types of angles you see in the figure. Explain your answer.

Item Type: *Open Response*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.G.1.1

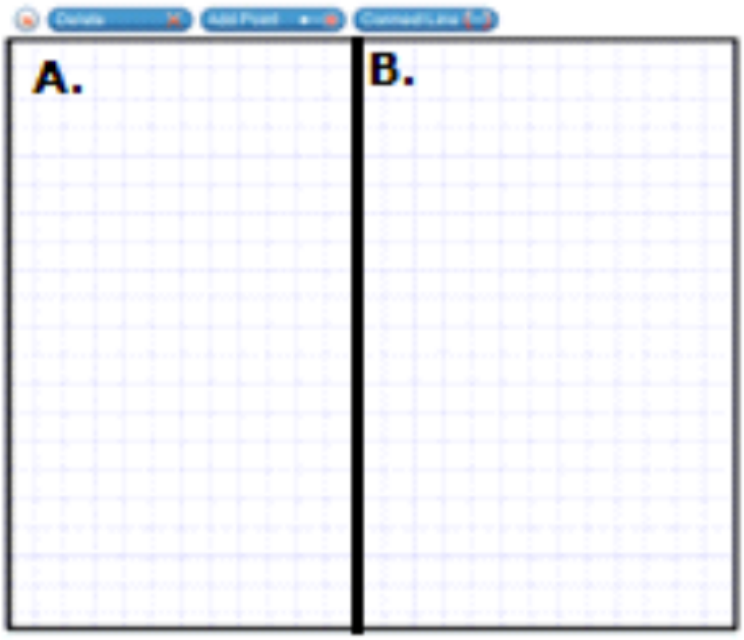
Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Practice Makes Improvement – Level 1

Example 1:

A. Draw an obtuse angle.

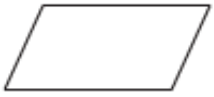
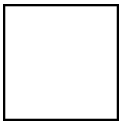
B. Draw an acute angle.



Item Type: GRID

Example 2:

Select all the attributes that apply to each figure.

		
Contains Parallel Lines		
Contains Perpendicular Lines		
Contains Acute Angle		
Contains Obtuse Angle		

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.G.1.1

Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Practice Makes Improvement – Level 1

Example 3:

Which angle is obtuse?

a. 

b. 

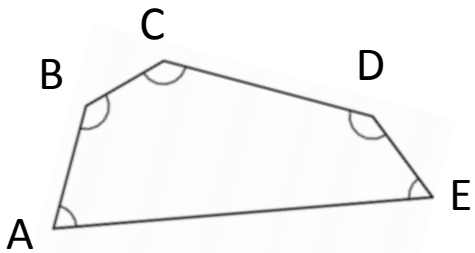
c. 

d 

Item Type: *Multiple Choice*

Example 4:

A figure is shown.



Select all of the angles that are acute.

a. A
b. B
c. C
d. D
e. E

Item Type: *Multi-Select*

Example 5:

A figure is shown.

Describe the types of angles you see in the figure. Explain your answer.

Item Type: *Open Response*

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.G.1.1

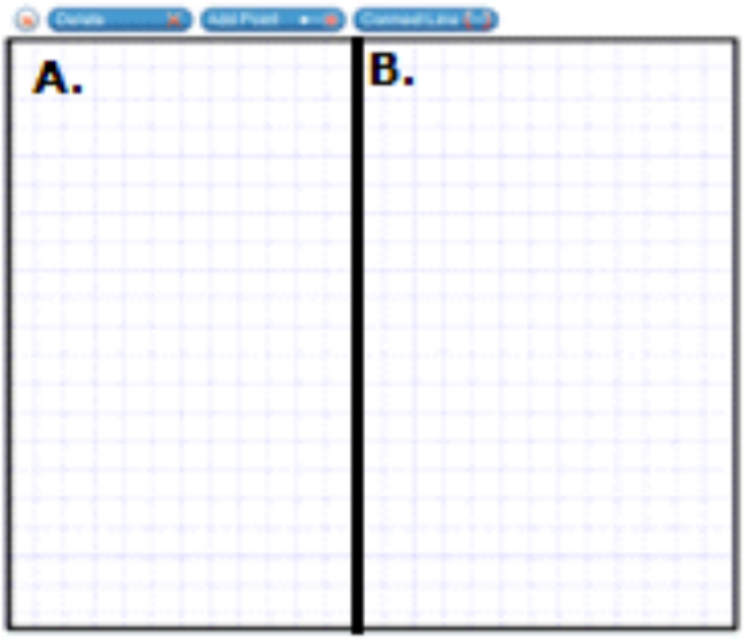
Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Practice Makes Improvement – Level 2

Example 1:

A. Draw two lines that are parallel.

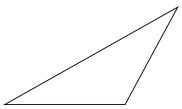
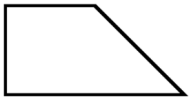
B. Draw two lines that are perpendicular.



Item Type: GRID

Example 2:

Select all the attributes that apply to each figure.

		
Contains Parallel Lines		
Contains Perpendicular Lines		
Contains Acute Angle		
Contains Obtuse Angle		

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.G.1.1

Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Practice Makes Improvement – Level 2

Example 3:

Which of the following best describes the figure?

a. ray

c. line segment

b. angle

d. line

Item Type: *Multiple Choice*

Example 4:

Select all of the figures that appear to have at least one right angle.

Figure 1

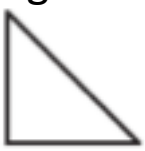


Figure 2

Figure 3

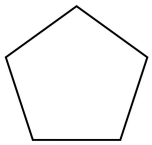


Figure 4

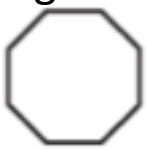
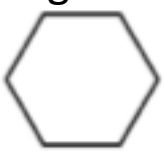


Figure 5

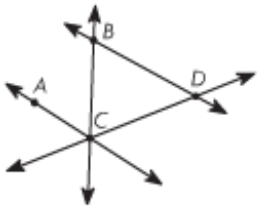


a. Figure 1
b. Figure 2
c. Figure 3
d. Figure 4
e. Figure 5

Item Type: *Multi-Select*

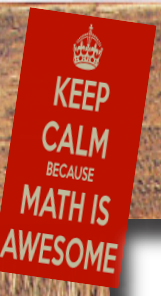
Example 5:

A figure is shown.



Which lines in the figure appear to be parallel? Explain your reasoning.

Item Type: *Open Response*



Lesson 27

MAFS.4.G.1.2

Topic:

Classify Two-Dimensional Figures

How to Pass the Math FSA: 4th Grade

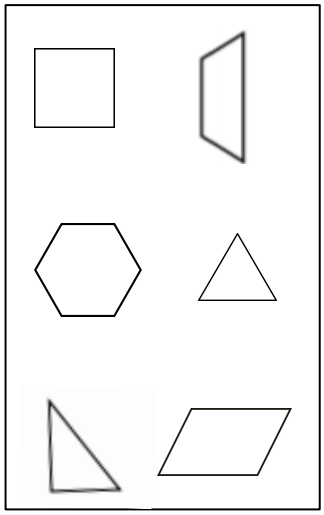
Focus: MAFS.4.G.1.2

Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right angles.

Let Me Teach Ya! (Video Lesson)

Example 1:

Sort the shapes based on the attributes below.



Regular Polygon	Irregular Polygon

Item Type: GRID

Example 2:

Select all the properties that **always** belong to each shape.

	Has a Right Angles	Has Parallel Lines	Has Perpendicular Lines
Rectangle			
Rhombus			
Trapezoid			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.G.1.2

Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right angles.

Let Me Teach Ya! (Video Lesson)

Example 3:

Which figure is an acute triangle?

a. 

c. 

b. 

d 

Item Type: *Multiple Choice*

Example 4:

Select all the obtuse triangles.

a. 

d. 

b. 

e. 

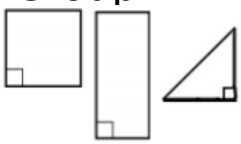
c. 

Item Type: *Multi-Select*

Example 5:

The shapes have been sorted into two groups.

Group 1



Group 2

Explain which attribute was used to sort the shapes.

Item Type: *Open Response*

How to Pass the Math FSA: 4th Grade

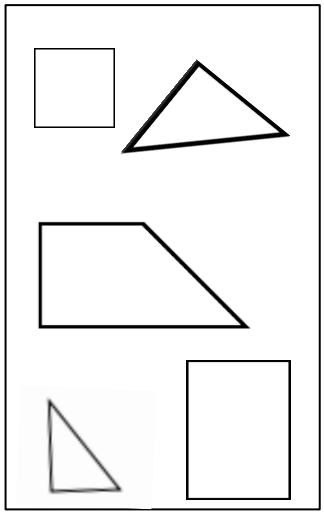
Focus: MAFS.4.G.1.2

Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right angles.

Practice Makes Improvement – Level 1

Example 1:

Sort the shapes based on the attributes below.



One Right Angle	More Than One Right Angle

Item Type: GRID

Example 2:

Select all the properties that **always** belong to each shape.

	Has a Right Angles	Has Parallel Lines	Has Perpendicular Lines
Right Triangle			
Square			
Parallelogram			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

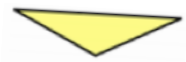
Focus: MAFS.4.G.1.2

Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right angles.

Practice Makes Improvement – Level 1

Example 3:

Which figure is an obtuse triangle?

a. 

c. 

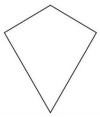
b. 

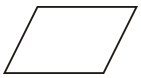
d 

Item Type: *Multiple Choice*

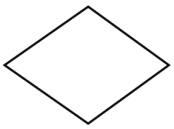
Example 4:

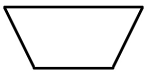
Select all the figures that are parallelograms.

a. 

d. 

b. 

e. 

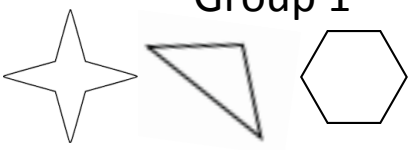
c. 

Item Type: *Multi-Select*

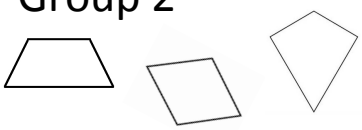
Example 5:

The shapes have been sorted into two groups.

Group 1



Group 2



Explain what attribute was used to sort the shapes.

Item Type: Open Response

How to Pass the Math FSA: 4th Grade

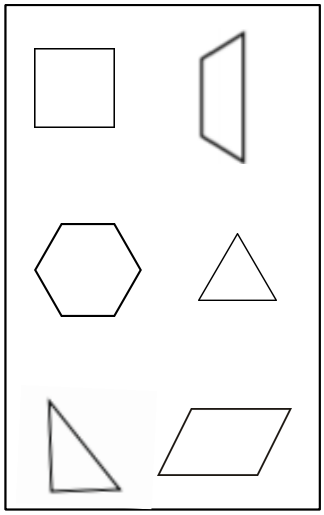
Focus: MAFS.4.G.1.2

Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right angles.

Practice Makes Improvement – Level 2

Example 1:

Sort the shapes based on the attributes below.



Parallel Sides	No Parallel Sides

Item Type: GRID

Example 2:

Select all the properties that **always** belong to each shape.

	Has 4 sides	Has an Acute Angle	Has 4 angles
Acute Triangle			
Rhombus			
Trapezoid			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

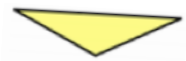
Focus: MAFS.4.G.1.2

Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right angles.

Practice Makes Improvement – Level 2

Example 3:

Which figure is a right triangle?

a. 

c. 

b. 

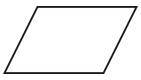
d 

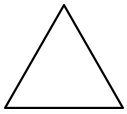
Item Type: Multiple Choice

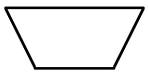
Example 4:

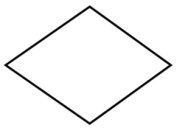
Select all the figures that can be described as a rhombus.

a. 

d. 

b. 

e. 

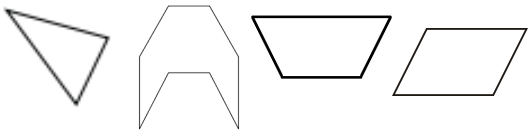
c. 

Item Type: Multi-Select

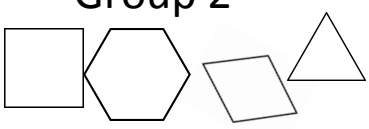
Example 5:

The shapes have been sorted into two groups.

Group 1

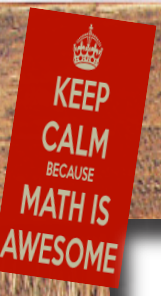


Group 2



Explain what attribute was used to sort the shapes.

Item Type: Open Response



Lesson 28

MAFS.4.G.1.3

Topic:

Line of Symmetry

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.G.1.3

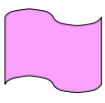
Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

Let Me Teach Ya! (Video Lesson)

Example 1:
Draw all possible lines of symmetry for the figure below.

Item Type: GRID

Example 2:
Match each shape with the correct number of lines of symmetry.

	No lines of symmetry	1 line of symmetry	2 or more lines of symmetry
			
			
			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.G.1.3

Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

Let Me Teach Ya! (Video Lesson)

Example 3:

How many lines of symmetry does the following figure have?

Item Type: Equation Editor

Example 4:

Which figure has a line of symmetry?

a. 

b. 

c. 

d. 

Item Type: Multiple Choice

Example 5:

Select all the figures that have at least one line of symmetry.

a. Q

b. S

c. Y

d. X

e. W

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.G.1.3

Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

Practice Makes Improvement – Level 1

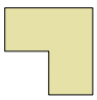
Example 1:

Draw all possible lines of symmetry for the figure below.

Item Type: GRID

Example 2:

Match each shape with the correct number of lines of symmetry.

	No lines of symmetry	1 line of symmetry	2 or more lines of symmetry
			
			
			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.G.1.3

Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

Practice Makes Improvement – Level 1

Example 3:

How many lines of symmetry does the following figure have?

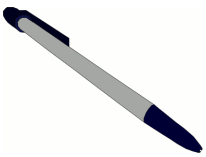
Item Type: Equation Editor

Example 4:

Which figure has a line of symmetry?

a. 

c. 

b. 

d. 

Item Type: Multiple Choice

Example 5:

Select all the figures that have at least one line of symmetry.

a. O

d. R

b P

e. F

c. V

Item Type: Multi-Select

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.G.1.3

Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

Practice Makes Improvement – Level 2

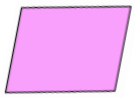
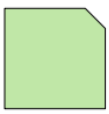
Example 1:

Draw all possible lines of symmetry for the figure below.

Item Type: GRID

Example 2:

Match each shape with the correct number of lines of symmetry.

	No lines of symmetry	1 line of symmetry	2 or more lines of symmetry
			
			
			

Item Type: Matching Item

How to Pass the Math FSA: 4th Grade

Focus: MAFS.4.G.1.3

Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

Practice Makes Improvement – Level 2

Example 3:

How many lines of symmetry does the following figure have?

Item Type: *Equation Editor*

Example 4:

Which figure has a line of symmetry?

a. 5

c. 7

b. 3

d. 9

Item Type: *Multiple Choice*

Example 5:

Select all the figures that have at least one line of symmetry.

a. H

d. G

b. J

e. E

c. L

Item Type: *Multi-Select*