Name: _____ **Date:** _____

6th Grade Math Review

Tracie speaks 30 words in 45 seconds. At that rate, approximately how many words will Tracie speak in 120 seconds?

A. 80 words
B. 100 words
C. 120 words
D. 180 words

6.RP.A.3b

Daniel used 4 strawberries and 12 blueberries to make a parfait. What was the ratio of the number of strawberries to the number of blueberries in the parfait?

A. 1:2
B. 1:3
C. 1:4
D. 1:6

6.RP.A.1

Solve the following expression:

$$3(2d + 5w)$$

A. $5d + 8w$
B. $6d + 8w$
C. $6d + 15w$
D. $5d + 15w$

6.EE.A.3

A construction worker is painting walls. He has 4 1/4 gallons of paint. All of the walls are the same size and each require 3/4 gallon of paint. How many walls will the construction worker be able to repaint with that amount of paint?

A. 4 walls
B. 5 walls
C. 6 walls
D. 7 walls

6.NS.A.1

The musical had one performance at the Opera House. The Opera House has 1,700 seats. Tickets for 95% of the total number of seats were sold. How many tickets were sold at the Opera House?

A. 1,445 seats
B. 1, 538 seats
C. 1,615 seats
D. 1,700 seats

6.RP.A.3c

What number is not part of the solution set to the inequality below?

$$x - 13 \geq 24$$

A. 36
B. 37
C. 42
D. 59

6.EE.B.5

Circle all of the expressions below where $x = 7.2$?

A. $x + 4.1 = 11.3$
B. $14 - x = 6.2$
C. $2x + 3 = 17.4$
D. $8 + 2 - x = 2.8$
E. $5 + 3x = 26.3$

6.NS.A.1

What is the value of r in the following equation?

$$4 + r - 17 = 10$$

A. 10
B. 13
C. 23
D. 29

6.EE.B.5

An expression is shown below.

$$5t + \frac{1}{2}(8t + 4)$$

Which expression is equivalent to the given expression?

A. $13t + 4$
B. $5t + 4t + 2$
C. $9t + 2$
D. $5t + t + 2$

6.EE.A.4

Which statement below shows two equivalent expressions?

A.	$c + c + c + c$	c^4
B.	$12d - 5 + 2d$	$10d - 5$
C.	$8g + 2w$	$2(4g + w)$
D.	$3k^2 + 8k + 5$	$11k^2 + 5$

6.EE.A.4

A store sells two different packages of markers as described below.

Package A: 16 markers
Package B: 10 markers

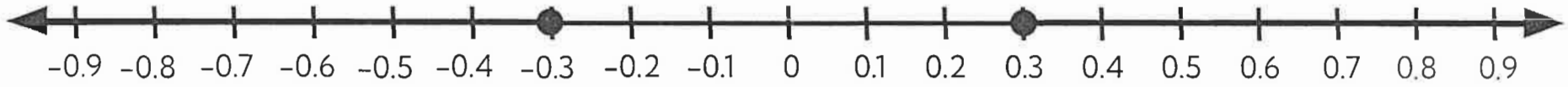
Create an equation for Package A and an equation for Package B that represent the total number of markers, m, in p packages

Package A:

Package B:

6.EE.C.9

Which statements about the two points shown on the number line are true? Select all the correct answers.



A. The two points are both 0.3 units from 0. 3
B. The two points show that 0.3 is equal to -0.3.
C. The absolute value of -0.3 is greater than 0.3.
D. The absolute value of -0.3 is less than 0.3.
E. The two points represent the same absolute value.

6.NS.C.7

Determine which expression is equivalent to:

$$\frac{1}{4}(12x + 16) + 2x + 4$$

A. $5x + 20$
B. $5x + 8$
C. $12x + 20$
D. $12x + 8$

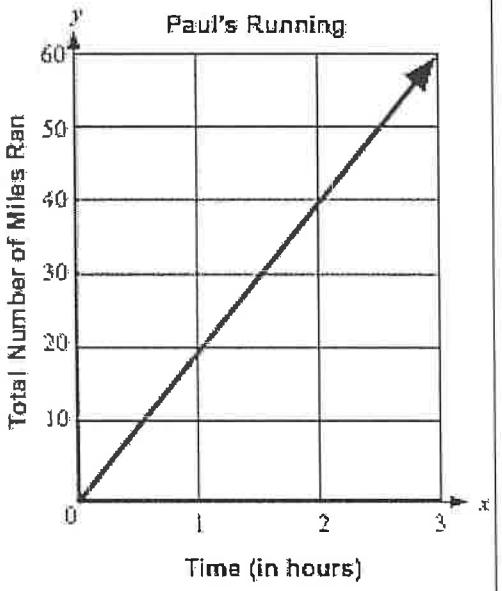
6.EE.A.3

Barbie and Ken are making bracelets. Barbie makes 30 bracelets. Ken makes m more bracelets than Barbie. Which expression represents the total number of bracelets Barbie and Ken make?

A. $30 + (30 + m)$
B. $30 + 30m$
C. $30 + m$
D. $30m$

6.EE.B.6

The graph shows how many miles Paul ran over time.



Write an expression that can be used to represent the total number of miles, m, that Paul runs in x hours.

6.EE.C.9

An expression is shown below. What is the value of the expression?

$$3.2 \cdot 2 + 5.7$$

A. 6.4
B. 12.1
C. 14.6
D. 20.24

6.NS.B.3

What is the value of 6^4?

A. 24
B. 36
C. 216
D. 1,296

6.EE.A.1

A container has 14 ½ cups of sports drink. Paige gives each of her classmates ¾ cups of sports drink. She gives away all of the sports drink. Which expression below represents how to determine how many classmates Paige has?

A. $14\frac{1}{2} - \frac{3}{4}$
B. $14\frac{1}{2} \cdot \frac{3}{4}$
C. $\frac{3}{4} \cdot 14\frac{1}{2}$
D. $14\frac{1}{2} \div \frac{3}{4}$

6.NS.A.1

A shoe store sells 4 boots for every 3 heels sold. Which table shows this ratio?

A.

Boots	Heels
4	3
6	6
8	9

B.

Boots	Heels
4	3
8	6
16	9

C.

Boots	Heels
4	3
8	6
16	12

D.

Boots	Heels
4	3
8	6
18	12

6.RP.A.3a

A store sells two different packages of gum as described below.

Package A: 7 sticks of gum
Package B: 15 sticks of gum

PART A: Create an equation for Package A and an equation for Package B that represent the total number sticks of gum, g, in p packages

Package A:

Package B:

PART B: Mr. Grubb buys 7 packages of the Package A sticks of gum. Ms. Herr buys 3 packages of the Package B sticks of gum. Find the difference in the total number of sticks of gum purchased by Mr. Grubb and Ms. Herr.

6.EE.C.9

Do the situations in the table below describe positive, negative, or zero values? Mark the appropriate box to select zero, positive, or negative in each row of the table.

#	Situation	Positive	Negative	Zero
1	A temperature of 19 degrees below zero.			
2	A mountain at sea level.			
3	You receive $25 for your birthday.			
4	A location that is 4 feet below sea level.			
5	A $50 credit is put on your account.			
6	You write a check for $35.			

6.NS.C.5

A recipe uses 1 ½ cups of juice to make 18 servings. If the same amount of juice is used for each serving, how many servings can be made using 1 gallon of juice? [1 gallon = 16 cups]

A. 12 servings
B. 18 servings
C. 192 servings
D. 288 servings

6.RP.A.3d

A band is having a concert in Detroit at the Center for the Arts. The Detroit Center for the Arts has 742 seats. If tickets were sold for 504 of the seats, what percent of the seats were the tickets sold?

A. 67%
B. 68%
C. 70%
D. 85%

6.RP.A.3c

An expression is shown below. What is the value of the expression?

$$2{,}040 \div 24$$

A. 60
B. 75
C. 80
D. 85

6.NS.B.2

An expression is shown below. What is the value of the expression?

$$13.52 - (2.6 \cdot 5.2)$$

A. 0
B. 10
C. 15.52
D. 56.78

6.NS.B.3

An expression is shown below. What is the value of the expression?

$$5^3$$

6.EE.A.1

A carpenter needs to cut 10-inch pieces of wood from a board of wood that is 8 feet in length. What is the greatest number of 10-inch pieces the carpenter can cut from 6 of these wood boards.

A. 9.6 pieces
B. 54 pieces
C. 80 pieces
D. 96 pieces

6.RP.A.3d

Ms. Watkins ordered lunch to be delivered to her classroom for herself and some students. The cost of each lunch is $7.85. What is the total cost of delivering 8 lunches?

A. $7.85
B. $8.00
C. $56.00
D. $62.80

6.EE.A.2a

The formula below is used to convert a temperature in degrees Celsius, C, to Fahrenheit, F.

$$F = 1.8C + 32$$

The low temperature is 4°C in the city of Detroit. What is the low temperature in degrees Fahrenheit?

A. 7.2°F
B. 32°F
C. 39.2°F
D. 70.56°F

6.EE.A.2c

Darnell paid $48.24 for 12 straws. At this rate, how much would it cost Darnell to buy 9 straws?

A. $4.02
B. $16.24
C. $36.18
D. $48.24

6.RP.A.3b

A internet plan offers 450 minutes for $90.00 per month. What is cost per minute to use the internet when a person uses all 450 minutes in a month?

A. $0.02
B. $0.20
C. $2.00
D. $20.00

6.RP.A.2

An equation is shown below. What is the solution to the equation?

$$x + 5.1 = 9.8$$

A. 4.7
B. 14.5
C. 14.9
D. 19.6

6.EE.B.7

The ratio of students to teachers on a class trip to Washington D.C. is 6 to 1. Which table correctly shows this ratio for each grade going on the trip?

A.

Grade	# of Students	# of Adults
6	72	12
7	90	15
8	108	18

B.

Grade	# of Students	# of Adults
6	12	72
7	15	90
8	18	108

C.

Grade	# of Students	# of Adults
6	90	12
7	109	15
8	126	18

6.RP.A.3a

Saltwater contains salt. Because of this, saltwater freezes only at temperatures colder than 4 degrees below zero on the Celsius scale.

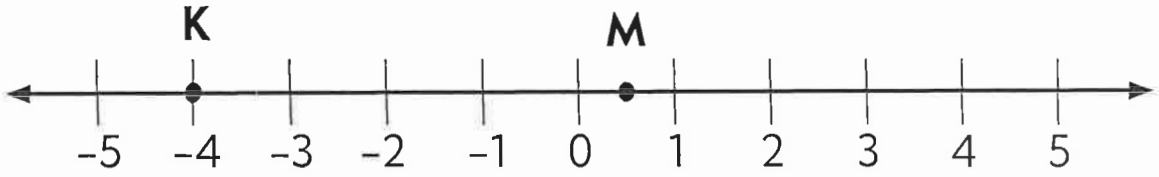
If t represents the temperature of saltwater in degrees Celsius, which inequality represents the temperatures at which saltwater freezes?

A. $t > -4$
B. $t \geq -4$
C. $t \leq -4$
D. $t < -4$

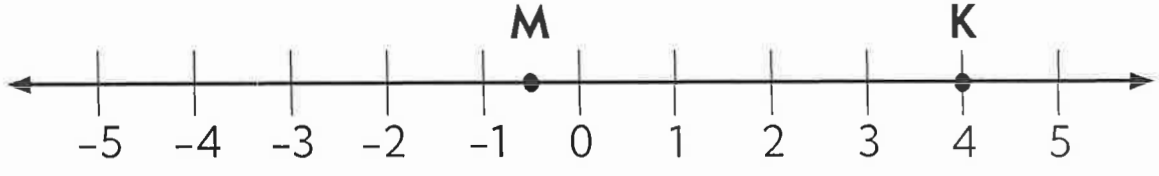
6.EE.B.8

Point K represents the opposite of -4 and point L represents the opposite of ½. Which number line correctly shows points K and L?

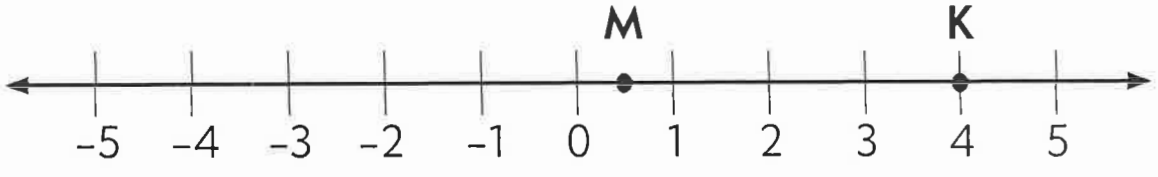
A.



B.



C.



6.NS.C.6

A soccer player attempts 12 shots on goal in a game. She makes 9 out of the attempted shots in the goal. Which describes the number of the goals the player made to the number of shots the player attempted?

A. 4/3
B. 2/5
C. 3/4
D. 5/2

6.RP.A.1

Sam has 1 3/4 cups of ice cream to make milkshakes. Each milkshake uses 2/3 cup of ice cream. What is the maximum number of milkshakes that Sam can make with ice cream?

A. 1 milkshake
B. 2 milkshakes
C. 3 milkshakes
D. 4 milkshakes

6.NS.A.1

A football team has 25 offensive players and 40 defensive players. What is the ratio of the number of defensive players to the number of offensive players on the team?

A. 5:8
B. 5:7
C. 7:5
D. 8:5

6.RP.A.1

A factory produces 72 pairs of legging 6 minutes. At the same rate, how many pairs of leggings will the factory produce in 8 minutes?

A. 12 pairs of leggings
B. 36 pairs of leggings
C. 96 pairs of leggings
D. 168 pairs of leggings

6.RP.A.3b

Dalton ran 8 3/4 miles today, and Jerry ran 3 1/2 miles. How many times the length of Dalton's run was Jerry's run?

A. 3/2 times as far
B. 9/4 times as far
C. 2/5 times as far
D. 24/4 times as far

6.NS.A.1

Solve the following expression:

$$4(2d + 5w)$$

6.EE.A.3

There are 744 calories in 6 pieces of pizza. How many calories are in 9 slices of pizza?

A. 124 calories
B. 562 calories
C. 1,116 calories
D. 1,860 calories

6.RP.A.3b