

6th Grade FSA Countdown

Customary Conversions

1 foot = 12 inches

1 yard = 3 feet

1 mile = 5,280 feet

1 mile = 1,760 yards

1 cup = 8 fluid ounces

1 pint = 2 cups

1 quart = 2 pints

1 gallon = 4 quarts

1 pound = 16 ounces

1 ton = 2,000 pounds

Metric Conversions

1 meter = 100 centimeters

1 meter = 1000 millimeters

1 kilometer = 1000 meters

1 liter = 1000 milliliters

1 gram = 1000 milligrams

1 kilogram = 1000 grams

Time Conversions

1 minute = 60 seconds

1 hour = 60 minutes

1 day = 24 hours

1 year = 365 days

1 year = 52 weeks

Formulas

$$A = bh$$

$$A = lw$$

$$A = \frac{1}{2}bh$$

$$A = \frac{1}{2}h(b_1 + b_2)$$

$$V = Bh$$

$$V = lwh$$

Test Length

This table provides the approximate range for the number of items on each test.

Grade/Course	Number of Items
3	60–64
4	60–64
5	60–64
6	62–66
7	62–66
8	62–66
Algebra 1	64–68
Algebra 2	64–68
Geometry	64–68

Note: Approximately 6–10 items on all of the tests listed above are experimental (field test) items and are included in the ranges above but are not included in students' scores.

Sessions and Times

Grade/Course	Administration Time	Number of Sessions*	Computer-Based in 2015
3	160 minutes	2	No
4	160 minutes	2	No
5	160 minutes	2	Yes
6	180 minutes	3	Yes
7	180 minutes	3**	Yes
8	180 minutes	3**	Yes
Algebra 1	180 minutes	2**	Yes
Algebra 2	180 minutes	2**	Yes
Geometry	180 minutes	2**	Yes

*All sessions are administered over two days.
 **Session 1 is the non-calculator portion of each assessment.

Percentage of Computer-Based Test Composed of Technology-Enhanced Items

Grade/Course	Percentage Range
Grades 5-8 Mathematics*	25%–50%
Algebra 1, Geometry, Algebra 2 EOCs	40%–60%

* Grades 3 and 4 Mathematics tests, once computer based, will also be composed of 25%–50% TEIs.

Grade 6 Mathematics Standards Coverage

Reporting Category	Standard	% of Test
Ratio and Proportional Relationships	MAFS.6.RP.1.1	15%
	MAFS.6.RP.1.2	
	MAFS.6.RP.1.3	
Expressions and Equations	MAFS.6.EE.1.1	30%
	MAFS.6.EE.1.2	
	MAFS.6.EE.1.3	
	MAFS.6.EE.1.4	
	MAFS.6.EE.2.5	
	MAFS.6.EE.2.6	
	MAFS.6.EE.2.7	
	MAFS.6.EE.2.8	
	MAFS.6.EE.3.9	
Geometry	MAFS.6.G.1.1	15%
	MAFS.6.G.1.2	
	MAFS.6.G.1.3	
	MAFS.6.G.1.4	
Statistics & Probability	MAFS.6.SP.1.1	19%
	MAFS.6.SP.1.2	
	MAFS.6.SP.1.3	
	MAFS.6.SP.2.4	
	MAFS.6.SP.2.5	
The Number System	MAFS.6.NS.1.1	21%
	MAFS.6.NS.2.2	
	MAFS.6.NS.2.3	
	MAFS.6.NS.2.4	
	MAFS.6.NS.3.5	
	MAFS.6.NS.3.6	
	Also Assesses MAFS.6.NS.3.8	
MAFS.6.NS.3.7		
Total Standard Groupings	28	100%

Florida Standards Assessments Test Item Descriptions

The Florida Standards Assessments (FSA) are composed of test items that include traditional multiple-choice items, items that require students to type or write a response, and technology-enhanced items (TEI). Technology-enhanced items are computer-delivered items that require students to interact with test content to select, construct, and/or support their answers. Currently, there are nine types of TEIs that may appear on computer-based assessments for FSA Mathematics.

Technology-Enhanced Item Types – Mathematics

- 1. Editing Task Choice** – The student clicks a highlighted word or phrase, which reveals a drop-down menu containing options for correcting an error as well as the highlighted word or phrase as it is shown in the sentence to indicate that no correction is needed. The student then selects the correct word or phrase from the drop-down menu. For paper-based assessments, the item is modified so that it can be scanned and scored electronically. The student fills in a circle to indicate the correct word or phrase.
- 2. Editing Task** – The student clicks on a highlighted word or phrase that may be incorrect, which reveals a text box. The directions in the text box direct the student to replace the highlighted word or phrase with the correct word or phrase. For paper-based assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
- 3. Hot Text** –
 - a. Selectable Hot Text**–Excerpted sentences from the text are presented in this item type. When the student hovers over certain words, phrases, or sentences, the options highlight. This indicates that the text is selectable (“hot”). The student can then click on an option to select it. For paper-based assessments, a “selectable” hot text item is modified so that it can be scanned and scored electronically. In this version, the student fills in a circle to indicate a selection.
 - b. Drag-and-Drop Hot Text**–Certain numbers, words, phrases, or sentences may be designated “draggable” in this item type. When the student hovers over these areas, the text highlights. The student can then click on the option, hold down the mouse button, and drag it to a graphic or other format. For paper-based assessments, drag-and-drop hot text items will be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
- 4. Open Response**–The student uses the keyboard to enter a response into a text field. These items can usually be answered in a sentence or two. For paper-based assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
- 5. Multi-select** – The student is directed to select all of the correct answers from among a number of options. These items are different from multiple-choice items, which allow the student to select only one correct answer. These items appear in the online and paper-based assessments.
- 6. Graphic Response Item Display (GRID)** – The student selects numbers, words, phrases, or images and uses the drag-and-drop feature to place them into a graphic. This item type may also require the student to use the point, line, or arrow tools to create a response on a graph. For paper-based assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
- 7. Equation Editor** – The student is presented with a toolbar that includes a variety of mathematical symbols that can be used to create a response. Responses may be in the form of a number, variable, expression, or equation, as appropriate to the test item. For paper-based assessments, this item type may be replaced with a modified version of the item that can be scanned and scored electronically or replaced with another item type that assesses the same standard and can be scanned or scored electronically.
- 8. Matching Item** – The student checks a box to indicate if information from a column header matches information from a row. For paper-based assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
- 9. Table Item** – The student types numeric values into a given table. The student may complete the entire table or portions of the table depending on what is being asked. For paper-based assessment, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.

6 th Grade Standards		Review Week									IP Semester	# times reviewed
Domain	Standard	1	2	3	4	5	6	7	8	9		
<i>Equations & Expressions (30%)</i>	6.EE.1.1	X					X				1	10
	6.EE.1.2		X				X				1	10
	6.EE.1.3			X			X				1	10
	6.EE.1.4			X			X				1	10
	6.EE.2.5				X			X			1	10
	6.EE.2.6				X			X			1	10
	6.EE.2.7				X				X		1	10
	6.EE.2.8				X				X		1	10
	6.EE.3.9			X				X			1	10
<i>Geometry (15%)</i>	6.G.1.1			X							2	5
	6.G.1.2			X							2	5
	6.G.1.3				X						2	5
	6.G.1.4					X					2	5
<i>Number System (21%)</i>	6.NS.1.1	X				X					1	10
	6.NS.2.2	X						X			1	10
	6.NS.2.3	X						X			1	10
	6.NS.2.4	X						X			1	10
	6.NS.3.5		X								1	5
	6.NS.3.6		X						X		1	10
	6.NS.3.7		X						X		1	10
	6.NS.3.8		X								1	5
<i>Ratio & Proportions (15%)</i>	6.RP.1.1					X					2	5
	6.RP.1.2					X					2	5
	6.RP.1.3					X			X		2	10
<i>Statistics & Probability (19%)</i>	6.SP.1.1									X	2	5
	6.SP.1.2									X	2	5
	6.SP.1.3									X	2	5
	6.SP.2.4									X	2	5
	6.SP.2.5									X	2	5

Day 1

1. **6.EE.1.1**

$2^4 = ?$

- A. $2 + 2 + 2 + 2$
- B. $2 + 4$
- C. $2 \cdot 2 \cdot 2 \cdot 2$
- D. $2 \cdot 4$

2. **6.NS.1.1**

Select whether the quotient for each fraction division expression is less than one or greater than/ equal to one.

	< 1	≥ 1
$\frac{7}{10} \div \frac{14}{10}$		
$\frac{7}{10} \div \frac{14}{20}$		
$\frac{7}{10} \div \frac{1}{2}$		
$\frac{7}{10} \div \frac{4}{5}$		

3. **6.NS.2.2**

$9063 \div 19 =$

4. **6.NS.2.3**

$0.243 + 70.3 = \underline{\hspace{2cm}}$

5. **6.NS.2.4**

What is the greatest common factor of 56 and 49?

Day 2

1. **6.EE.1.1**

Evaluate the expression: $\frac{1}{3}(4 \cdot 3) + 2^3$

The value of the expression is: _____

2. **6.NS.1.1**

Christopher just found beautiful yarn for 20% off at his favorite yarn store. He can make one scarf from $\frac{2}{3}$ of a ball of yarn. If Christopher buys 12 balls of yarn, how many scarves can he make?

3. **6.NS.2.2**

A skyscraper with 103 floors is 1,133 feet tall. Each floor is the same height. How tall is each floor?

4. **6.NS.2.3**

$$3.05 - 0.338 =$$

5. **6.NS.2.4**

What is the least common multiple of 12 and 8?

Name: _____

6th Grade Math: Week 1 FSA Countdown

Date: _____

Period: _____

Day 3

1. **6.EE.1.1**

Write a numerical expression with exponents to describe the sum of $3 \times 3 \times 3 \times 3$ and 36.

2. **6.NS.1.1**

Gavin drank $\frac{3}{4}$ of a liter of orange juice from a container, which was $\frac{3}{8}$ of the orange juice that was originally in the container. How much orange juice was originally in the container?

3. **6.NS.2.2**

$$10788 \div 31 =$$

4. **6.NS.2.3**

$$0.703 \times 2.43 =$$

5. **6.NS.2.4**

There are 72 boys and 90 girls on a math team. For the next competition, Mr. Johnson would like to arrange all the students in equal rows with only girls or only boys in each row. What is the greatest number of students that can be in each row?

Day 4

1. **6.EE.1.1**

The table you're working at keeps wobbling. You decide to fix it by making a thick pad of paper from folded sheets of paper. Each time you fold a sheet in two, the number of layers doubles. You fold a first sheet of paper 3 times and stick it beneath the wobbly leg. It doesn't quite do the trick, so you fold another sheet of paper 2 times and put it beneath the wobbly leg too. In total, how many layers of paper did it take to prop up the table? _____ layers

2. **6.NS.1.1**

George has a goal of walking $\frac{9}{2}$ kilometers today. Each time he walks to school and back, he walks a total of $\frac{1}{2}$ kilometers. What is the meaning of $\frac{9}{2} \div \frac{1}{2}$?

- A. The speed in kilometers per hour that George needs to walk in order to reach his goal.
- B. The fraction of George's goal that he accomplishes each time he walks to school and back.
- C. How many kilometers George will have left to reach his goal after walking to school and back 1 time.
- D. The number of times George must walk to school and back to accomplish his goal.

3. **6.NS.2.2**

$$3041 \div 63 = \underline{\hspace{2cm}}R\underline{\hspace{2cm}}$$

4. **6.NS.2.3**

$$168.72 \div 0.024 =$$

5. **6.NS.2.4**

We can rewrite the expression $16 + 8$ as $8 \times (2 + 1)$. Notice that 8 is the greatest common factor of 16 and 8. Use this same method to rewrite the expression $24 + 36$ as the product of the greatest common factor of 24 and 36 and the sum of the remaining numbers.

$$24 + 36 = \underline{\hspace{4cm}}$$

Day 5

1. **6.EE.1.1**

Evaluate the following expression:

$$(2 \cdot 3)^2 - 5^2$$

2. **6.NS.1.1**

Sequoia has $\frac{1}{2}$ of a liter of apple juice which fills $\frac{1}{3}$ of her glass. How many glasses will 1 liter of apple juice fill?

3. **6.NS.2.2**

$$9263 \div 88 = \underline{\hspace{2cm}}R\underline{\hspace{2cm}}$$

4. **6.NS.2.3**

At a local gas station, regular gasoline sells for \$2.899 per gallon, while premium gasoline sells for \$3.379 per gallon. How much does a person save on 15.25 gallons of gas by buying regular instead of premium?

5. **6.NS.2.4**

Your local radio station is having their yearly MP3 and concert ticket giveaway. For one minute, every 5th caller will win an MP3 player and every 7th caller will win concert tickets. You were just the first caller to win both an MP3 player and concert tickets! What number caller were you?

Day 1

1. 6.EE.1.2

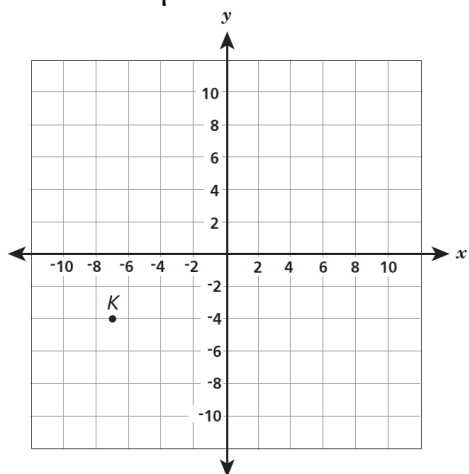
You have two cubes that you fill with water to make ice cubes. The first cube has a side length of 3 units. The second cube has a side length of 5 units. Write an expression that you can use to find the total volume of ice you can make.

2. 6.NS.3.5

The temperature on Saturday was -4 degrees Fahrenheit ($^{\circ}\text{F}$). The temperature on Sunday was 9 degrees warmer than the temperature on Saturday. Was the temperature, in degrees Fahrenheit, positive or negative on Sunday? Explain.

3. 6.NS.3.6

What coordinates best represent the location of point K on the coordinate plane?



4. 6.NS.3.7

The level of the top of the water in the ocean is considered to be at an altitude of zero (0) feet.

- The ocean floor at a particular dive site is -20 feet.
- A diver is located at -5 feet at the same site.
- The captain of a boat is located at an altitude of 15 feet, directly above the diver.

Determine whether each statement is correct. Select True/False for each statement.

	True	False
The distance from the captain to the diver is greater than the distance from the top of the water to the ocean floor	<input type="checkbox"/>	<input type="checkbox"/>
The distance from the captain to the top of the water is the same as the distance from the diver to the ocean floor.	<input type="checkbox"/>	<input type="checkbox"/>
When the diver swims to -10 feet, the diver will be the same distance below the top of the water as the captain is above the top of the water.	<input type="checkbox"/>	<input type="checkbox"/>
When the diver swims to -10 feet, the diver's distance to the ocean floor will be equal to diver's distance to the top of the water.	<input type="checkbox"/>	<input type="checkbox"/>

5. 6.NS.3.8

The coordinates of point V are (7, 4). Point W is a reflection of point V across the x-axis. In which quadrant will point W be located?

- A. I
- B. II
- C. III
- D. IV

Day 2

1. **6.EE.1.2**

Which expression represents the phrase “8 less than the product of 6 and a number, x ”?

- A. $8 - 6x$
- B. $6x - 8$
- C. $(6 + x) - 8$
- D. $8 - (6 + x)$

2. **6.NS.3.5**

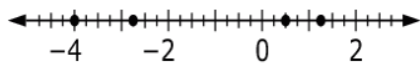
Electrons and protons are particles in an atom with equal but opposite charges. Electrons have a negative charge and protons have a positive charge. What is the charge of an atom with 2 more electrons than protons?

3. **6.NS.3.6**

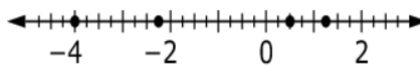
Which number line shows the correct locations of **all** the given values?

$$\frac{1}{2}, -4, -2\frac{3}{4}, 1\frac{1}{4}$$

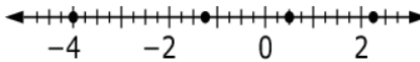
A.



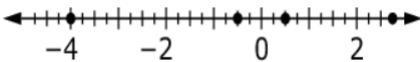
B.



C.



D.



4. **6.NS.3.7**

Which of the following has a value between $\frac{10}{3}$ and $\frac{11}{3}$?

$$\frac{10}{3} \text{ and } \frac{11}{3}$$

A. $3\frac{1}{2}$

B. $3\frac{1}{4}$

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

D. $3\frac{1}{8}$

5. **6.NS.3.8**

The coordinates of the vertices of a rectangle are $(-2, 3)$, $(4, -4)$, $(4, 3)$, and $(-2, -4)$. What are the dimensions of the rectangle?

A. 1 unit by 2 units

B. 1 unit by 6 units

C. 7 units by 2 units

D. 7 units by 6 units

Day 3

1. **6.EE.1.2**

Write an expression to represent: Seven less than the product of two and a number x .

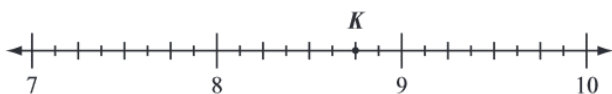
2. **6.NS.3.5**

The lowest point in the United States is in Death Valley. Its elevation is 282 ft below sea level. Which of the following choices expresses this elevation as an integer?

- A. 282
- B. -282
- C. 0
- D. 94

3. **6.NS.3.6**

The location of point K is shown on the number line below. What fraction is represented by the location of point K ?

4. **6.NS.3.7**

Sea level is 0 feet in elevation. The elevation of land represents its height above or below sea level. This table shows the lowest elevation in some states.

State	Lowest Elevation (ft)
Arizona	72
California	-282
Louisiana	-68
Tennessee	178

Determine whether each statement about the lowest elevations is correct. Select True/False for each statement

	True	False
The elevation at the lowest point in California is higher than the lowest point in Louisiana.		
The elevation at the lowest point in Tennessee is farther from 0 than the elevation at the lowest point of Louisiana.		
The elevation at the lowest point in Louisiana is higher than the lowest point in California.		

5. **6.NS.3.8**

The coordinates of point A are $(-6, 4)$. The coordinates of point B are $(3, 4)$. Which expression represents the distance, in units, between points A and B ?

- A. $|-6| + |3|$
- B. $|3| - |-6|$
- C. $|-6| + |-4|$
- D. $|4| - |-6|$

Day 4

1. **6.EE.1.2**

What is the value of the expression $3z - 3$ when $z = 7$?

- A. 12
- B. 18
- C. 21
- D. 34

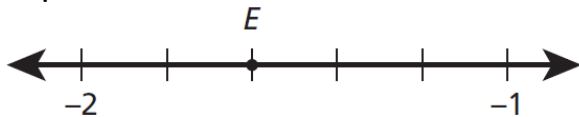
2. **6.NS.3.5**

Geographers use negative numbers to represent points below sea level, and positive numbers to represent points above sea level. For example, the lowest point in New Orleans is at -2 meters, and the highest point is at 6 meters. What does 0 meters represent?

- A. Sea level
- B. The highest point in New Orleans
- C. The lowest point in Baton Rouge
- D. The lowest point in New Orleans

3. **6.NS.3.6**

Which number best represents the location of point E on the number line below?



- A. -1.8
- B. -1.6
- C. -1.5
- D. -1.3

4. **6.NS.3.7**

The table below shows the low temperature in a town each day for four days. Which of the following lists the temperatures in order from least to greatest?

Low Temperatures

Day	Monday	Tuesday	Wednesday	Thursday
Temperature (in °F)	5	1	-8	-3

- A. 1, -3, 5, -8
- B. -3, -8, 1, 5
- C. -8, -3, 5, 1
- D. -8, -3, 1, 5

5. **6.NS.3.8**

What is the distance between the points $(-7, 1)$ and $(-7, -5)$ on the coordinate plane?

Day 5

1. **6.EE.1.2**

Which of the following answers matches “The quotient of 9 and the sum of the quantities 5 and product of 8 and x.”

- A. $\frac{8x+5}{9}$
- B. $9(5x + 8)$
- C. $\frac{8x}{9} + 5$
- D. $\frac{8+5x}{9}$

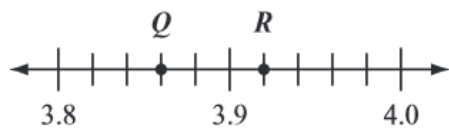
2. **6.NS.3.5**

Daniel is mapping out important family events. He uses negative numbers to represent time before he got his first cat, and positive numbers to represent time after he got his first cat. For example, Daniel’s mom was born in year -28 , and Daniel got his first dog in year 7. What does year 0 represent?

- A. The year Daniel got his first cat
- B. The year Daniel got his first dog
- C. The year Daniel lost his first tooth
- D. The year Daniel’s mom was born

3. **6.NS.3.6**

Points Q and R on the number line below each represent a real number. Which of the following numbers is located **between** points Q and R on the number line?



- A. 3.84
- B. 3.88
- C. 3.94
- D. 3.98

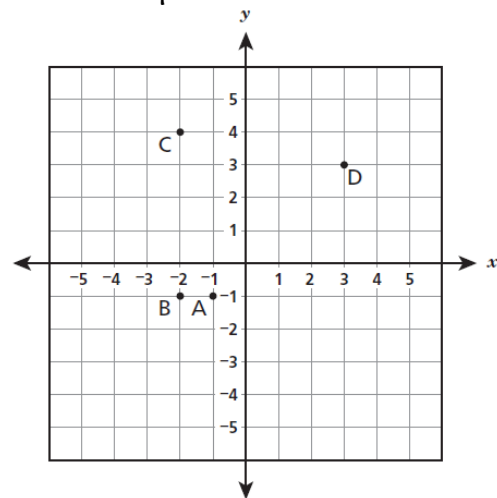
4. **6.NS.3.7**

Jenna’s weight changed by -3 kg last month. Sarah’s weight changed by $2\frac{1}{2}$ kg last month. Which of the following statements are true?

- A. Jenna lost more weight than Sarah did last month.
- B. Sarah gained more weight than Jenna did last month.
- C. There was a greater change in Sarah’s weight than Jenna’s weight last month.
- D. There was a greater change in Jenna’s weight than Sarah’s weight last month.

5. **6.NS.3.8**

Point G is the point $(3, -1)$. Which point is 5 units from point G?



- A. Point A
- B. Point B
- C. Point C
- D. Point D

Day 1

1. **6.EE.1.3**

Which of the following is equivalent to the expression $6m + 3$

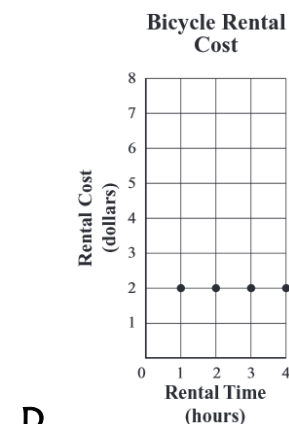
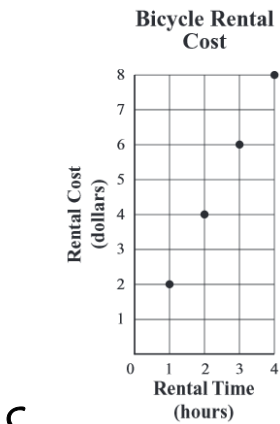
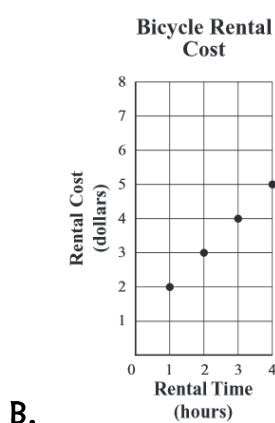
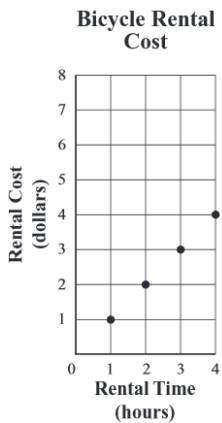
- A. $2(3m + 3)$
- B. $3(2m + 1)$
- C. $3(2m + 3)$
- D. $6(m + 3)$

2. **6.EE.1.4**

Do the phrases “38 minus 15” and “15 less than 38” mean the same thing? Explain.

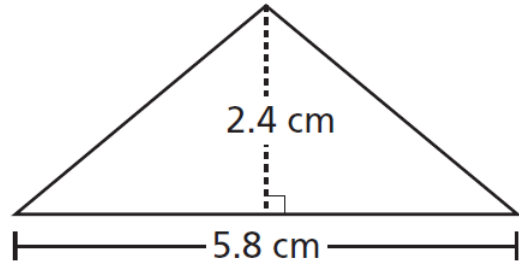
3. **6.EE.3.9**

The cost of renting a bicycle from Dan’s Bike Shop is \$2 for 1 hour plus \$1 for each additional hour of rental time. Which of the following graphs shows the cost, in dollars, of renting a bicycle from Dan’s Bike Shop for 1, 2, 3, and 4 hours?



4. **6.G.1.1**

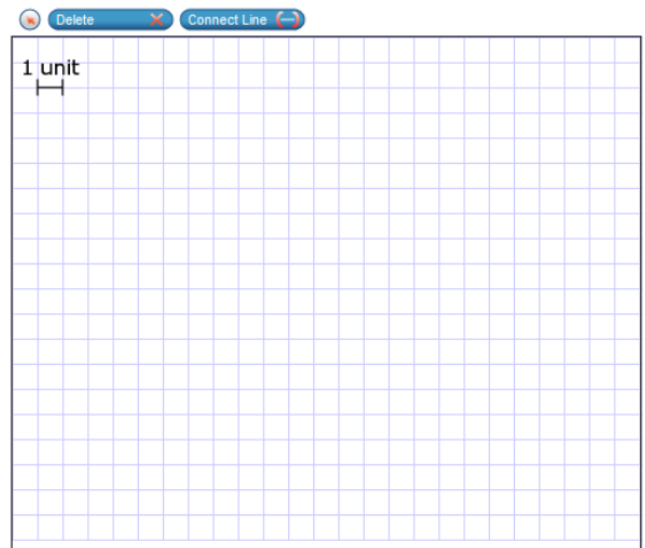
What is the area, in square centimeters, of the figure below?



- A. 6.96 cm^2
- B. 10.6 cm^2
- C. 13.92 cm^2
- D. 17.4 cm^2

5. **6.G.1.2**

Micah constructs a rectangular prism with a volume of 360 cubic units. The height of his prism is 10 units. Micah claims that the base of the prism must be a square. Use the “Connect Line” tool to draw a base that shows Micah’s claim is incorrect.



Day 2

1. **6.EE.1.3**

Which expression is equivalent to $3(6m) + m$?

- A. $19m$
- B. $21m$
- C. $7m + 3$
- D. $18m + 6m^2$

2. **6.EE.1.4**

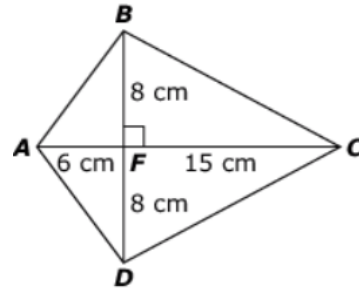
Explain whether $x + 2y + 3z$ is equivalent to $z + y + z + x + y + z$.

3. **6.EE.3.9**

In the morning, Emily studied 40 minutes for a math exam. Later that evening, Emily studied for x more minutes. Write an **equation** that represents the total number of minutes, y , Emily studied for the math exam.

4. **6.G.1.1**

Enter the total area of the figure ABCD in square centimeters.



5. **6.G.1.2**

A box in the shape of a right rectangular prism has a length of 8 inches, a width of 4 inches, and a height of 3 inches. What is the volume, in cubic inches, of the box? Do not round your answer.

Day 3

1. **6.EE.1.3**

Write an expression that is equivalent to the following:

$$x + x + x + x - 20$$

2. **6.EE.1.4**

Ms. Peterson wrote the expression below on the chalkboard for her class. She asked the students to write an equivalent expression using no more than one set of parentheses.

$$4(3x + 5y + 2z) + 3(x - z)$$

- Tom wrote $12x + 20y + 8z$
- Jenna wrote $5(3x + 4y + z)$
- Chris wrote $15x + 20y - 5z$

Which, if any, of the three students wrote an expression that is equivalent to Ms. Peterson's expression?

3. **6.EE.3.9**

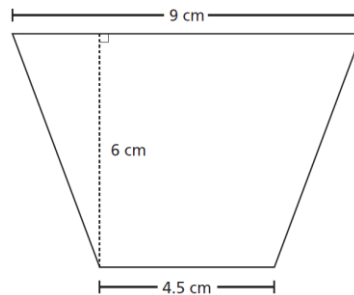
Which of the following rules is true for all values in the input-output table below?

Input (x)	Output (y)
2	4
3	6
6	12
8	16
10	20

- A. $x + 1 = y$
- B. $x + 2 = y$
- C. $2x = y$
- D. $3x - 2 = y$

4. **6.G.1.1**

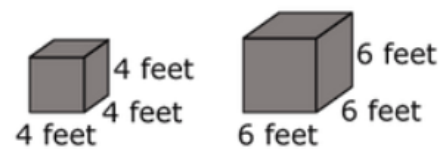
What is the area of the isosceles trapezoid shown?



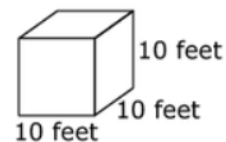
- A. 27 cm^2
- B. 33.8 cm^2
- C. 40.5 cm^2
- D. 54 cm^2

5. **6.G.1.2**

Two shaded cubes are shown.



Ben states that the combined volume of these two shaded cubes is equal to the volume of this cube.



Find the combined volume of the two shaded cubes, and use it to explain whether Ben is right or not.

Day 4

1. **6.EE.1.3**

Which expression is equivalent to $5(d + 1)$?

- A. $5d + 5$
- B. $5d + 1$
- C. $d + 5$
- D. $d + 6$

2. **6.EE.1.4**

Which pairs of expressions below are equivalent? (Select all that apply)

- A. $x + y + x + y$ and $2(x + y)$
- B. $5x + 3x - 2y$ and $-2y + 8x$
- C. $5(2x - 3y)$ and $10x - 3y$
- D. $4x - 5y$ and $5y - 4x$
- E. $6x - 8y$ and $3(2x - 4y)$
- F. $9x + 2y$ and $11xy$

3. **6.EE.3.9**

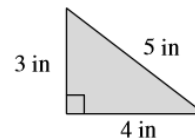
A freight train is traveling at a constant speed. The table below shows how far the train travels after different amounts of time. Complete the table below.

Time (in hours)	Distance (in miles)
2	
3	120
	200
8	

Write an equation for d , the distance traveled by the train, after h hours.

4. **6.G.1.1**

Given the triangle below, choose True or False for the following:



	True	False
The triangle is a right triangle.		
The height of the triangle is 5 inches.		
The perimeter is 12 inches.		
The area is 60 square inches.		

5. **6.G.1.2**

The base of a right rectangular prism has an area of 173.6 square centimeters and a height of 9 centimeters. What is the volume, in cubic centimeters, of the right rectangular prism?

- A. 182.6
- B. 781.2
- C. 14,061.6
- D. 1,562.4

Day 5

1. **6.EE.1.3**

Use the distributive property to write an expression that is equivalent to the expression below.

$$5(2x + 7)$$

2. **6.EE.1.4**

Clerk 1 uses the expression $4a + 3g - 2$ to find the total. Clerk 2 uses $3g + 4a - 2$. Will the totals be the same? Explain.

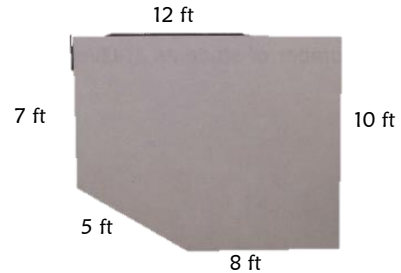
Apples: \$4/bag Grapes: \$3/bag Today ONLY \$2 off

3. **6.EE.3.9**

The Ferrells save \$150 each month for their next summer vacation. Write an equation that they can use to find s , their savings, after m months.

4. **6.G.1.1**

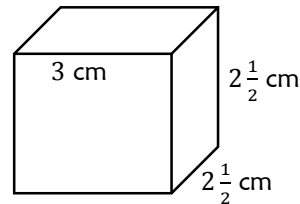
The Masons built a deck in their backyard.



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

5. **6.G.1.2**

Find the volume, in cubic centimeters, of the rectangular prism pictured below.



Day 1

1. **6.EE.2.5**

Karla wrote the equation $x \div 6 = 12$. What value of x makes Karla's equation true?

- A. 2
- B. 6
- C. 36
- D. 72

2. **6.EE.2.6**

Suppose you rent a bicycle to ride around a park. The rental fee is \$12 for each hour the bike is rented and \$5 for a helmet. What quantity should *not* be represented by a variable?

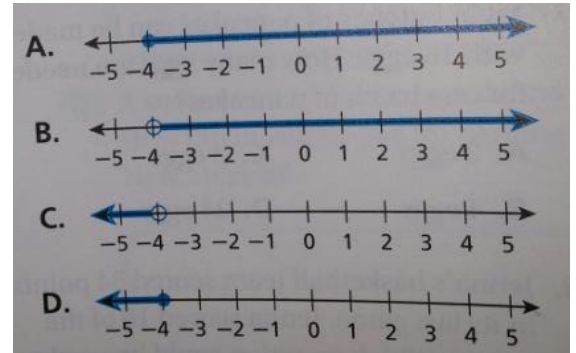
- A. The length of time you rent the bike
- B. The total cost of renting the bike
- C. The rental fee for the helmet
- D. The distance you travel

3. **6.EE.2.7**

What value of x makes the equation $4x = 24$ true?

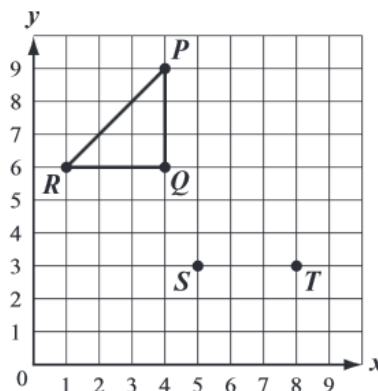
4. **6.EE.2.8**

Which graph represents the statement "the temperature will be greater than -4°F "?



5. **6.G.1.3**

Paula plotted $\triangle PQR$, point S , and point T , as shown below. Paula wants to plot point U so that point S , point T , and point U are the vertices of a triangle that is the same size and shape as $\triangle PQR$. Which of the following **cannot** be the coordinates of point U ?



- A. (4, 0)
- B. (5, 6)
- C. (8, 0)
- D. (8, 6)

Day 2

1. 6.EE.2.5

Select all the equations where $x = 5$ is a solution.

- A. $2x + 4 = 14$
- B. $5x = 55$
- C. $6x + 3 = 14$
- D. $8 + 3x = 23$
- E. $6x = 30$
- F. $5x = 1$

2. 6.EE.2.6

Which situation can be represented by the expression $1.3x$?

- A. The total cost of an item that is x dollars more than \$1.30
- B. The area of a rectangle with side lengths 1.3 and x
- C. The amount of change when \$1.30 is used to pay for an item costing x dollars
- D. The number of square feet in each lot when 1.3 acres is partitioned into x equal sections

3. 6.EE.2.7

Ms. Stone buys groceries for a total of \$45.32. She now has \$32.25 left. Which equation could be used to find out how much money Ms. Stone had before she bought the groceries?

- A. $\$45.32x = \32.25
- B. $x + \$45.32 = \32.25
- C. $x - \$45.32 = \32.25
- D. $x + \$32.25 = \45.32

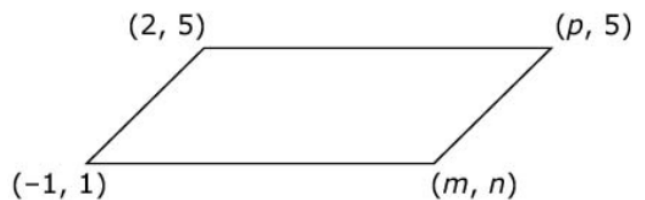
4. 6.EE.2.8

Lauren swims at least 24 laps each day. Which inequality shows s , the number of laps Lauren swims each day?

- A. $s \geq 24$
- B. $s \leq 24$
- C. $s > 24$
- D. $s < 24$

5. 6.G.1.3

The coordinates of this parallelogram are given. Determine if each statement is True or False.



	True	False
The length of the longer side is $p-2$.		
The length of the longer side is $n+1$.		
The short side is 4 units in length.		
$n = 5$		
$m > n$		
$p = 2$		

Day 3

1. **6.EE.2.5**

The set of numbers 1, 7, 11, and 36 contains values for m . What value of m makes the equation $4m + 8 = 36$ true?

2. **6.EE.2.6**

The movie shop sells posters for \$7, DVDs for \$15, and CDs for \$9. Write an algebraic expression to represent the total cost for 2 posters, d DVDs, and c CDs.

3. **6.EE.2.7**

What is the solution to the equation

$$4w = \frac{2}{3}?$$

A. $w = \frac{2}{12}$

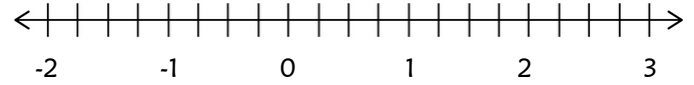
B. $w = \frac{2}{7}$

C. $w = \frac{8}{3}$

D. $w = 3\frac{1}{3}$

4. **6.EE.2.8**

Graph the inequality $x < 1\frac{1}{2}$.



5. **6.G.1.3**

Victor drew trapezoid PQRS on a coordinate plane. The coordinates of each vertex are:

P(8, 4) Q(10, 4) R(13, -1) S(8, -1)

What is the length, in units, of side PS?

A. 2

B. 3

C. 4

D. 5

Day 4

1. 6.EE.2.5

The set of numbers 1, 7, 11, and 36 contains values for m . What value of m makes the inequality $4m + 8 < 36$ true?

2. 6.EE.2.6

A national park charges \$26 per adult and \$16 per child for rafting down one of their two rivers. Write an algebraic expression that can be used to represent the total cost for a adults and c children to raft down the Wild River?

3. 6.EE.2.7

Draw a line from each equation to the operation that can be used to find the solution.

Equation:

$x + 5 = 9$

$4x = 20$

$5x = 20$

$x - 4 = 9$

Operation used to solve:

• Subtract 4 from each side.

• Subtract 5 from each side.

• Divide each side by 4.

• Multiply each side by 4.

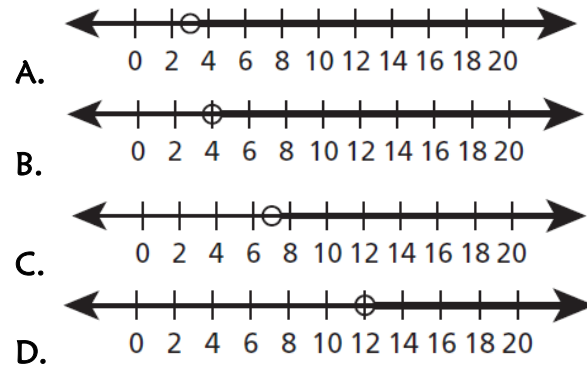
• Divide each side by 5.

• Add 4 to each side.

• Multiply each side by 5.

4. 6.EE.2.8

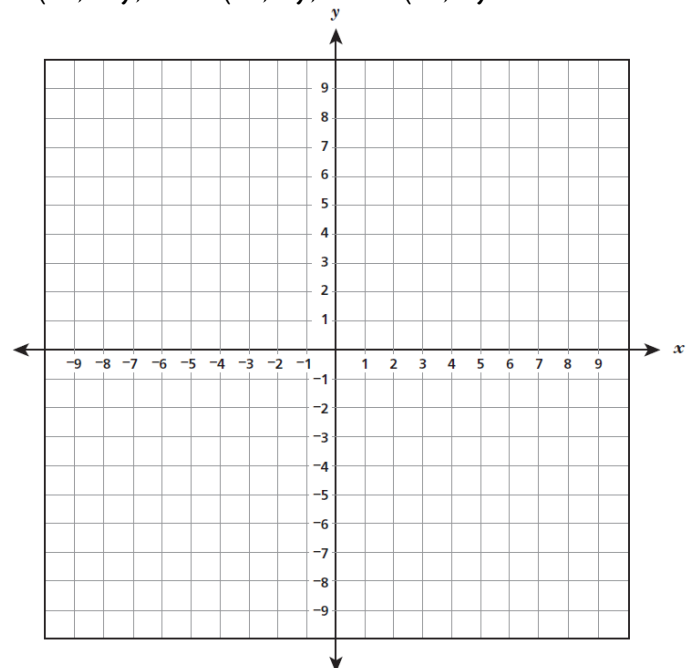
A printer makes more than 3 copies of a book every hour. Which graph represents the number of books made in 4 hours?



5. 6.G.1.3

Graph the polygon ABCDEF, which has vertices at the following coordinates on the grid below.

A(-4, 7), B(6, 7), C(6, -2),
D(-8, -2), E(-8, 3), F(-4, 3)



Day 5

1. 6.EE.2.5

For which of the following inequalities, is -4 part of the solution set? Select all that apply.

- A. $x > -5$
- B. $2 > x$
- C. $3x + 4 \geq -8$
- D. $5x \leq 2x - 3$
- E. $-6 < 4 - 2x$

2. 6.EE.2.6

Read each of the following problem situations. Match each equation to the corresponding situation. The labels may be used more than once. If neither equation works, select “Neither.”

- | | |
|----------|----------------|
| A | $25 + x = 325$ |
| B | $25x = 325$ |
| C | Neither |

1 The school auditorium can seat 325 students. In the auditorium there are 25 rows with the same number of seats in each row. Which equation can be used to find x , the number of seats in each row in the school auditorium?

2 There are 25 soccer balls in a store. The total number of soccer balls and basketballs in the store is 325. Which equation can be used to find x , the number of basketballs in the store?

3 Marissa had 25 marbles in a bag. She gave some to her brother. Her brother now has 325 marbles. Which equation can be used to find x , the number of marbles that Marissa gave her brother?

4 There are 25 cans of soup in a case. The manager of a grocery store needs to order 325 cans of soup. Which equation can be used to find x , the total number of cases the manager needs to order?

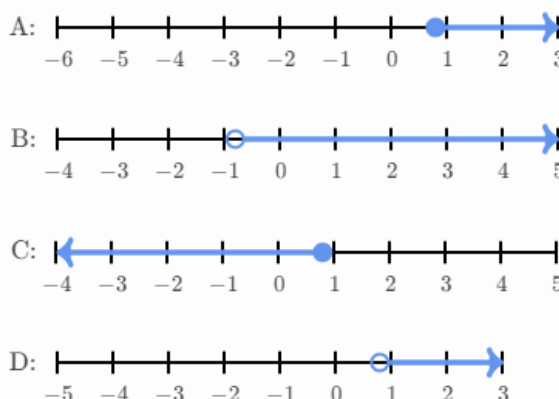
5 Cleo has a certain number of seashells. Pete has 25 seashells. Together Cleo and Pete have 325 seashells. Which equation can be used to find x , the total number of seashells that Cleo has?

3. 6.EE.2.7

Johnny and his brothers picked 665 pounds of apples. They put the apples into boxes that each hold 35 pounds. Write and solve an equation to find b , the number of boxes the brothers filled.

4. 6.EE.2.8

Which graph on the number line represents $x > 0.8$?



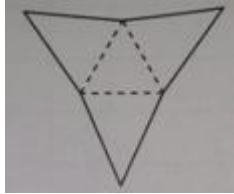
5. 6.G.1.3

What is the perimeter of polygon ABCDEF that you graphed on Day 4 #5?

Day 1

1. 6.G.1.4

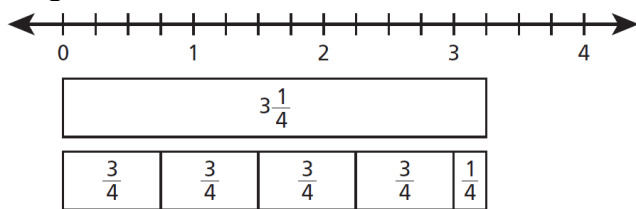
Which figure could the net below represent?



- A. B. C. D.

2. 6.NS.1.1

Which expression is modeled by the diagram below?

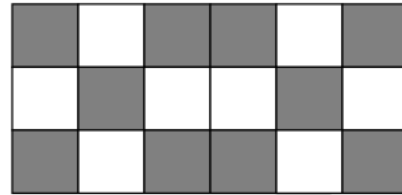


- A. $3\frac{1}{4} \div \frac{3}{4}$
 B. $\frac{3}{4} \div 3\frac{1}{4}$
 C. $3 \div \frac{1}{4}$
 D. $\frac{1}{4} \div 3$

3. 6.RP.1.1

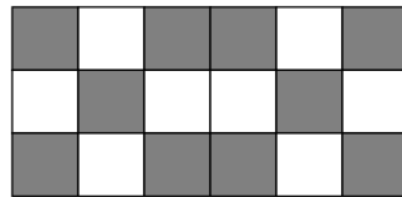
The new floor in the school cafeteria is going to be constructed of square tiles that are either gray or white and in the pattern that appears below. What is the ratio of

white tiles to the total number of tiles in the pattern?



4. 6.RP.1.2

The new floor in the school cafeteria is going to be constructed of square tiles that are either gray or white and in the pattern that appears below. If the total cost of the white tiles is \$12, what is the unit cost per white tile?



5. 6.RP.1.3

The table below shows how much money a grocery store receives for selling different amount of asparagus. If the unit rate is constant, what is the total sales for 12 pounds of asparagus?

ASPARAGUS SALES

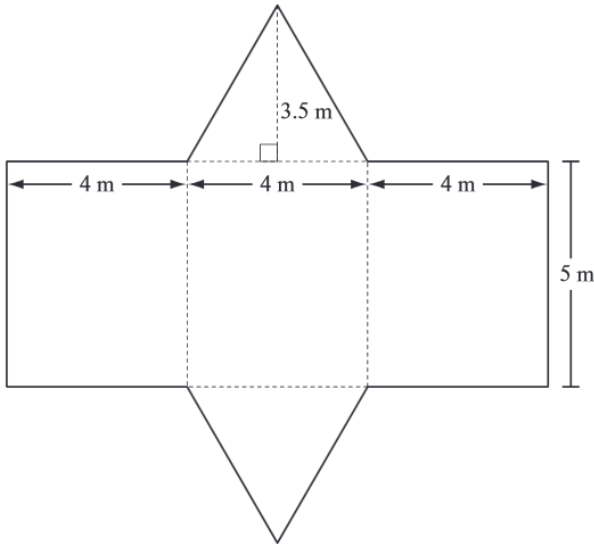
Number of Pounds	Total Sales
4	\$10
6	\$15
8	\$20
10	?
12	?

- A. \$22.50
 B. \$25.00
 C. \$30.00
 D. \$32.50

Day 2

1. **6.G.1.4**

The net of a triangular prism and its dimensions are shown below. What is the total surface area of the prism?



- A. $54 m^2$
- B. $60 m^2$
- C. $74 m^2$
- D. $76 m^2$

2. **6.NS.1.1**

The area of a rectangular city park is $\frac{25}{54}$ square miles. The length of the park is $\frac{5}{9}$ miles. What is the width, in miles, of the park?

- A. $\frac{4}{9}$
- B. $\frac{5}{6}$
- C. $1\frac{1}{54}$
- D. $1\frac{1}{5}$

3. **6.RP.1.1**

A restaurant worker used 5 loaves of wheat and 2 loaves of rye bread to make sandwiches for an event. What does the ratio 7:2 mean in terms of the loaves of bread used for this event?

4. **6.RP.1.2**

Felicity babysat 2 hours each night for 10 nights. She earned a total of \$180 babysitting. Felicity wants to calculate her hourly rate. How much did Felicity earn per hour babysitting?

- A. \$9
- B. \$15
- C. \$18
- D. \$20

5. **6.RP.1.3**

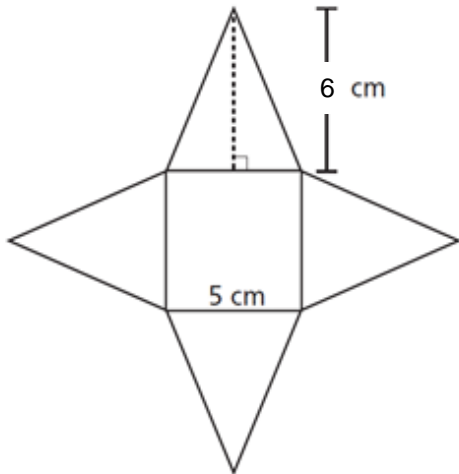
In Ms. Perron's class, 75% of the students are boys. There are 18 boys in the class. What is the total number of students in Ms. Perron's class?

- A. 6
- B. 14
- C. 24
- D. 57

Day 3

1. **6.G.1.4**

A net of a square pyramid is shown below. What is the surface area, in square centimeters, of the pyramid?

2. **6.NS.1.1**

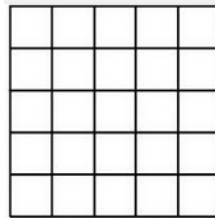
The length of a rectangular parking lot at the airport is $\frac{2}{3}$ mile. If the area is $\frac{1}{2}$ square mile, what is the width of the parking lot?

- A. $\frac{1}{3}$ mile
- B. $\frac{3}{4}$ mile
- C. $1\frac{1}{6}$ miles
- D. $1\frac{1}{3}$ miles

3. **6.RP.1.1**

Demetria is tiling a square area of her bathroom floor. For every 13 white tiles used, she wants to use 12 gray tiles.

On the grid, shade the tiles to show a pattern that would match the ratio of white tiles to gray tiles that Demetria would like to use. Then write a ratio to show the relationship between the number of white tiles and the number of gray tiles.



4. **6.RP.1.2**

A grocery store sign indicates that bananas are 6 for \$1.50, and a sign by the oranges indicates that they are 5 for \$3.00. Find the total cost of buying 2 bananas and 2 oranges.

- A. \$0.85
- B. \$1.70
- C. \$2.25
- D. \$4.50

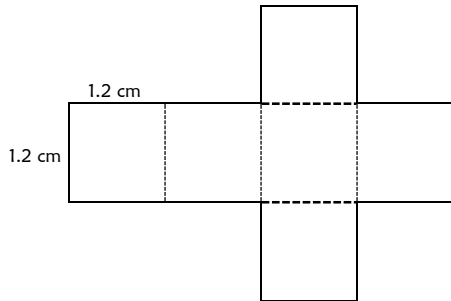
5. **6.RP.1.3**

Carl types 180 words in 2 minutes. At this rate, how many words does Carl type in 5 minutes?

Day 4

1. 6.G.1.4

The net below represents a cube. What is the surface area, in square centimeters, of the cube?



2. 6.NS.1.1

The equation shown has an unknown number. Write a fraction that makes the equation true.

$$? \div \frac{2}{3} = \frac{3}{4}$$

3. 6.RP.1.1

Last year the girls' basketball team had 8 fifth-grade students and 7 sixth-grade students. What was the ratio of sixth-grade students to fifth-grade students on the team?

- A. 8 : 15
- B. 8 : 7
- C. 7 : 8
- D. 15 : 8

4. 6.RP.1.2

Sydney ran 400 meters in 1 minute and 20 seconds. What was Sydney's average rate in meters per second?

- A. $\frac{1}{5}$
- B. 3
- C. $3\frac{1}{3}$
- D. 5

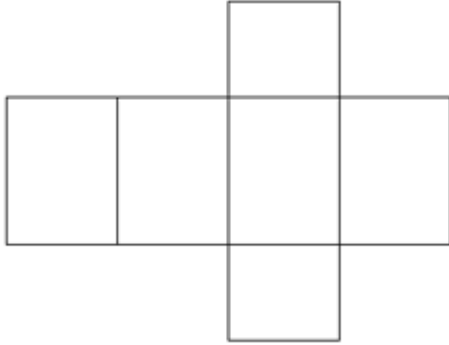
5. 6.RP.1.3

Jodi's car used 12 gallons of gas to travel 456 miles. How many miles did her car travel per gallon of gas?

Day 5

1. **6.G.1.4**

Which figure is represented by the net below?



- A. triangular prism
- B. square pyramid
- C. rectangular prism
- D. rectangular pyramid

2. **6.NS.1.1**

A recipe requires $\frac{3}{4}$ cups of nuts for 1 cake.
Enter the maximum number of cakes that
can be made using $7\frac{1}{2}$ cups of nuts.

3. **6.RP.1.1**

There are 50 white stars, 7 red stripes, and 6 white stripes on the U.S. flag. What is the relationship between stars and red stripes? Select ratios that could be used to describe the relationship. Select all that apply.

- A. 50:7
- B. 7:6
- C. $\frac{50}{7}$
- D. 13:50
- E. 6 to 50
- F. 50 to 7
- G. 50 to 13

4. **6.RP.1.2**

Sebastian swam laps every day in the community swimming pool. He swam an hour each day, 5 days each week, for 12 weeks. In that time, he swam 1,800 laps. What was his average rate in laps per hour?

5. **6.RP.1.3**

Mr. Anderson drove 168 miles in $3\frac{1}{2}$ hours. He then drove the next $2\frac{1}{4}$ hours at a rate of 5 miles per hour faster than the first rate. How many miles did Mr. Anderson drive during the $5\frac{3}{4}$ hour road trip?

Day 1

1. **6.EE.1.1**

What is the value of $5x^3 + 4y^3$ when $x=4$ and $y=3$?

2. **6.EE.1.2**

What is the value of the expression $6c^2 - 5d + 8$, when $c=5$ and $d=4$?

- A. 48
- B. 79
- C. 138
- D. 888

3. **6.EE.1.3**

Which expression is equivalent to $8x - 2y + x + x$?

- A. $4x$
- B. $8x$
- C. $6x - 2y$
- D. $10x - 2y$

4. **6.EE.1.4**

Which two expressions are equivalent to $6 \cdot v \cdot w \cdot \frac{1}{2}$?

- A. $1 \cdot 3 \cdot v \cdot w + 0$
- B. $3(v + w)$
- C. $3 \cdot v \cdot w$
- D. $w \cdot v \cdot \frac{1}{2} \cdot 6 + 1$
- E. $2 \cdot v \cdot w$

5. **6.EE.3.9**

A train was traveling at a constant speed. The table below shows the distance, in miles, the train traveled for the first 4 hours. Write an equation to represent the relationship between t , the time, and d , the total distance traveled by the train.

TRAIN TRIP

Time (hours)	Distance (miles)
1	95
2	190
3	285
4	380

Day 2

1. 6.EE.1.1

What is the value of the expression $3^4 + 9$?

- A. 21
- B. 39
- C. 43
- D. 90

2. 6.EE.1.2

Which expressions are equal to 41 when evaluated at $d=4$?

- A. $9d + 5$
- B. $7 + 3d^2$
- C. $10d - 1$
- D. $11d - \frac{12}{d}$
- E. $d^3 - 23$

3. 6.EE.1.3

Two expressions are shown below. Explain whether or not expressions P and Q are equivalent.

- P: $2(3x - 9)$
 Q: $6x - 9$

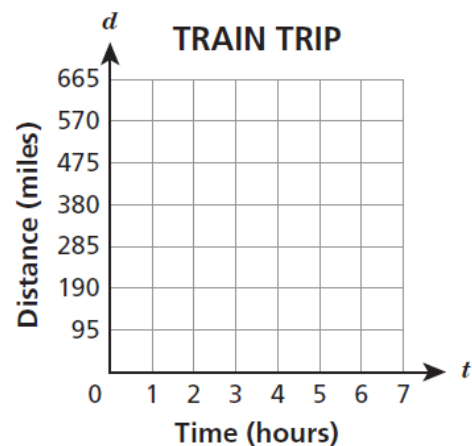
4. 6.EE.1.4

Which expression(s) are equivalent to $4b$?

- A. $b + 2(b + 2b)$
- B. $2(b + b)$
- C. $3b + b$
- D. $2b + 2b$
- E. $2(2b + b)$

5. 6.EE.3.9

Using the information in the table, draw a graph of the relationship between t , the time, and d , the total distance traveled by the train, for a trip that lasted from 0 to 7 hours.



TRAIN TRIP

Time (hours)	Distance (miles)
1	95
2	190
3	285
4	380

Day 3

1. **6.EE.1.1**

Evaluate $6^3 + 7 \times 4$

- A. 100
- B. 244
- C. 757
- D. 892

2. **6.EE.1.2**

Which of the following are terms in the expression $5r - 4s - 2$? Select all that apply.

- A. $4s$
- B. $-4s$
- C. $5r - 4s$
- D. $-5r$
- E. 5
- F. -2

3. **6.EE.1.3**

Which expressions are equivalent to w^8 ?

Select all that apply.

- A. $w + w + w + w + w + w + w + w$
- B. w^2w^6
- C. $w^3 + w^5$
- D. $8w$
- E. $4w^2$
- F. $w \cdot w \cdot w \cdot w \cdot w \cdot w \cdot w \cdot w$

4. **6.EE.1.4**

Select **all** the expressions that are equivalent to $8(t + 4)$.

- A. $2(4t + 2)$
- B. $8t + 32$
- C. $4t + 4 + 4t$
- D. $(8 + t) + (8 + 4)$
- E. $(8 \times t) + (8 \times 4)$

5. **6.EE.3.9**

A train was traveling at a constant speed. The table below shows the distance, in miles, the train traveled for the first 4 hours. If the train was traveling nonstop, how many miles would it travel in 5.5 hours?

TRAIN TRIP

Time (hours)	Distance (miles)
1	95
2	190
3	285
4	380

Day 4

1. 6.EE.1.1

The expression $6^3 \times 4^2$ is equivalent to which of the following numerical expressions?

- A. 18×8
- B. $(6 \times 4)^5$
- C. 24^6
- D. 216×16

2. 6.EE.1.2

The formula $C = \frac{5}{9}(F - 32)$ is used to convert the temperature in degrees Fahrenheit (F) to the temperature in degrees Celsius (C). What is the temperature in degrees Celsius (C) that is equal to 113 degrees Fahrenheit (F)?

3. 6.EE.1.3

Write an expression that is equivalent to the following:

$$4 \cdot x \cdot x \cdot x.$$

4. 6.EE.1.4

Which pair of expressions is equivalent?

- A. $4(6x)$ and $10x$
- B. $4(6x)$ and $24x$
- C. $4x + 6x$ and $10x^2$
- D. $4x + 6x$ and $24x$

5. 6.EE.3.9

A table can be used to show the relationship between the number of hours a painter works painting and the total amount the painter charges for painting. The painter charges \$25 per hour to paint a room. Complete the table to show the relationship between h , the number of hours the painter works, and c , the total amount, in dollars the painter charges for painting.

Painter's Charges

Number of Hours (h)	1	2	3	4	5
Total Charge for Painting (c)					

Write an equation that can be used to find c , the total charge for h hours of painting.

Day 5

Name: _____

6th Grade Math: Week 6 FSA Countdown

Date: _____

Period: _____

1. **6.EE.1.1**

Write an expression that is equivalent to 8 using each of the following numbers and symbols once in the expression.

7 7 7 ² + () ÷
(exponent)

2. **6.EE.1.2**

Represent the expression “A number, x , decreased by the sum of $2x$ and 5 ” algebraically.

- A. $(2x + 5) - x$
- B. $x - (2x + 5)$
- C. $x - 2x + 5$
- D. $(x + 2x) - 5$

3. **6.EE.1.3**

Which expression is equivalent to $16a + 24b$?

- A. $4(4a + 20b)$
- B. $8(2a + 3b)$
- C. $4a(4 + 6b)$
- D. $8ab(2 + 3)$

4. **6.EE.1.4**

Fill in the boxes to create an equivalent expression to $10h + 14k$.

(Enter an integer in each box)

($k + 5h$)

5. **6.EE.3.9**

A table can be used to show the relationship between the number of hours a painter works painting and the total amount the painter charges for painting. The painter charges \$25 per hour to paint a room. It took the painter 13 hours to paint a room. What is the total amount, in dollars, the painter charged for painting the room? Show or explain how you got your answer.

Day 1

1. **6.EE.2.5**

Consider the inequality $x > 7$. Determine whether each value of x shown in the table makes this inequality true. Select Yes or No for each value.

	Yes	No
22		
-7		
13		
5		
-39		

2. **6.EE.2.6**

Jeanie has a goal to run a total of 800 laps around her school's track this year. Her plan is to run exactly 4 laps each day. Which of the following expressions represents the total number of laps Jeanie will have left to run after d days?

- A. $800 - 4d$
- B. $800d - 4$
- C. $4d - 800$
- D. $4 - 800d$

3. **6.NS.2.2**

Divide $16,536 \div 24$.

4. **6.NS.2.3**

Gwen studies for 1.5 hours every night. What is the total number of hours Gwen studies for 5 nights?

- A. 4.5 hours
- B. 5.5 hours
- C. 6.5 hours
- D. 7.5 hours

5. **6.NS.2.4**

Timothy went to a baseball game. After the game, he wanted to ride the bus home. The red line and the blue line buses both stop at the stadium.

- A red line and a blue line bus both left the stadium at 4:00pm.
- Red line buses were scheduled to leave the stadium every 6 minutes.
- Blue line buses were scheduled to leave the stadium every 8 minutes.

If the buses run on schedule, when is the next time a red line and a blue line bus will leave together?

Day 2

1. **6.EE.2.5**

Which equation is true when $n = 4$? (Select all that apply)

- A. $2n = 6$
- B. $3n + 2 = 14$
- C. $\frac{16}{n} = 4$
- D. $n + 3 = 7$
- E. $9 - n = 5$
- F. $\frac{n}{12} = 3$

2. **6.EE.2.6**

Admission to a state fair is \$10, and each ride ticket costs \$2.50.

Write an expression to represent the situation.

What does the variable in your expression represent?

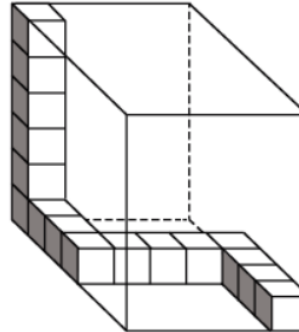
3. **6.NS.2.2**

The total amount of money collected by a store for sweatshirt sales was \$10,000. Each sweatshirt sold for \$40. What was the total number of sweatshirts sold by the store?

- A. 100
- B. 220
- C. 250
- D. 400

4. **6.NS.2.3**

Brady started to fill the box shown with some unit cubes. Enter the total number of cubes needed to completely fill the box. Include the unit cubes already shown in your total.



5. **6.NS.2.4**

Alice and Carl each have the same total number of marbles. Alice put her marbles into groups of 4 with none left over. Carl put his marbles into groups of 10 with none left over. What is the **least** total number of marbles that Alice and Carl can each have?

- A. 16
- B. 20
- C. 32
- D. 40

Day 3

1. **6.EE.2.5**

For which equation and/or inequality is $x = 6$ a solution? Select all that apply.

- A. $12 - 2x = 0$
- B. $\frac{1}{2}x \times 4 = 8$
- C. $3x \div 9 \geq 2$
- D. $2.5x + 4 < 20$
- E. $20 - \frac{1}{3}x = 14$

2. **6.EE.2.6**

You walk dogs in your neighborhood. You charge \$5 for each dog you walk. Sometimes you walk more than one dog a day. Sometimes you walk the same dog several days a week. Select all the variable quantities that represent this situation.

- A. The number of dogs you walk each day.
- B. The amount you charge for each dog.
- C. The total amount you make each day.
- D. The number of times you walk each dog every week.
- E. The breed of dogs you walk each week.

3. **6.NS.2.2**

At a wedding reception, there will be 1,012 guests. A round table will seat 12 guests. How many round tables will be needed?

4. **6.NS.2.3**

Lena has \$87.39 in her bank account. She deposits \$5.25 on Wednesday. On Friday, she withdraws \$15. What is the end balance in her account?

5. **6.NS.2.4**

Machines S and T were both cleaned this week.

- Machine S is cleaned every 12 weeks.
- Machine T is cleaned every 8 weeks.

What is the fewest number of weeks that will pass before both machines are cleaned again in the same week?

- A. 16
- B. 24
- C. 36
- D. 48

Day 4

1. 6.EE.2.5

Select **all** equations that have $x=3$ as a solution.

- A. $x + 7 = 10$
- B. $3 + x = 3$
- C. $x \cdot 3 = 1$
- D. $4 \cdot x = 12$
- E. $\frac{x}{12} = 4$

2. 6.EE.2.6

A bowling alley charges each person \$6 to play a game and \$4.50 to rent a pair of bowling shoes.

Write an expression to show how much the bowling alley will charge f friends if they each play 3 games and all but one of them rents shoes.

3. 6.NS.2.2

Divide 578 by 34.

4. 6.NS.2.3

Carlos needs 1.7 meters of wire for one project and 0.8 meters of wire for another project. Shade the model to represent the total amount of wire Carlos needs. Each full row represents 1.0 meters.

Each full row = 1.0 meter



5. 6.NS.2.4

Match each expression in the first column to its equivalent expression in the first row.

	$4(9 + 4)$	$3(8 + 5)$	$6(7 + 10)$
$24 + 15$			
$42 + 60$			
$36 + 16$			

Day 5

Name: _____

6th Grade Math: Week 7 FSA Countdown

Date: _____

Period: _____

1. **6.EE.2.5**

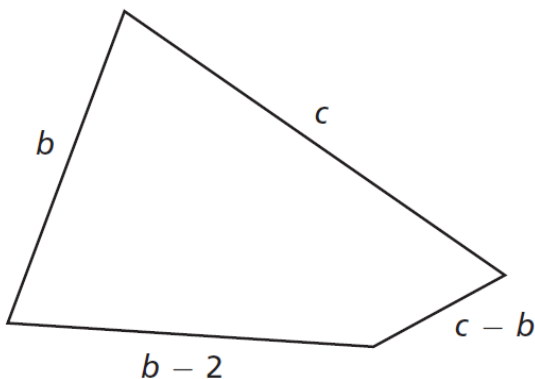
Which choice contains only solutions to the inequality below?

$$\frac{1}{2}x + 13 > 20$$

- A. $x = 9, x = 10, x = 12$
- B. $x = 10, x = 12, x = 14$
- C. $x = 14, x = 15, x = 16$
- D. $x = 15, x = 16, x = 18$

2. **6.EE.2.6**

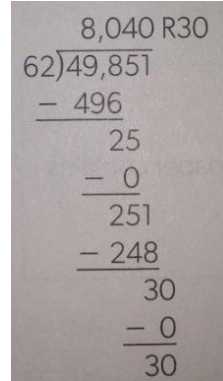
If $b=11$ and $c=16$, what is the perimeter of the quadrilateral below?



[not drawn to scale]

3. **6.NS.2.2**

Willie completed the division problem shown below.



Is his answer correct? If not, what mistake did he make?

4. **6.NS.2.3**

Carlos needs 1.7 meters of wire for one project and 0.8 meters of wire for another project. Carlos has 2.4 meters of wire. Does Carlos have enough wire?

- If he does, answer how much wire he will have left over.
- If he does **not**, answer how much more he needs.

Select the value from the box below.

0.1 0.2 0.3 0.4 0.5 0.9 1.6 2.5 3.2 4.1

5. **6.NS.2.4**

What is the least common multiple of 12 and 9?

- A. 72
- B. 36
- C. 24
- D. 3

Day 1

1. **6.EE.2.7**

Nadia bought 5 tickets to attend a spaghetti supper fundraiser at her school. The equation $5x=32.50$ can be used to find x , the cost of each ticket in dollars. Which equation represents the cost of each ticket?

- A. $x = \frac{32.50}{5}$
 B. $x = 32.50(5)$
 C. $x = 32.50 - 5$
 D. $x = 32.50 + 5$

2. **6.EE.2.8**

Amy is flying a plane for the first time. The dispatcher tells her to fly at 500 meters above the ground or higher.

Write an inequality to represent the height in meters, h , at which Amy can fly.

3. **6.RP.1.3**

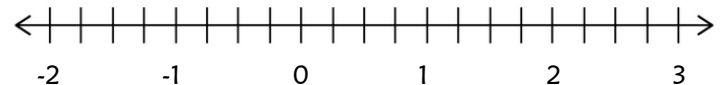
A dairy farmer uses two trucks to deliver milk. The two trucks use different kinds of fuel. Truck A uses gasoline and Truck B uses diesel. The table below shows the distance, in miles, that each truck can travel per gallon of fuel. Based on the table, what is the total number of miles Truck A can travel using 4 gallons of gasoline?

Miles Traveled per Gallon of Fuel

Gallons of Fuel	Truck A (Gasoline)	Truck B (Diesel)
1	8 miles	12 miles
2	16 miles	24 miles
3	24 miles	36 miles
4	? miles	48 miles
5	40 miles	60 miles

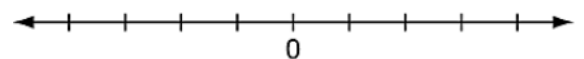
4. **6.NS.3.6**

Plot a point on the number line below that is the opposite of $-1\frac{3}{4}$.

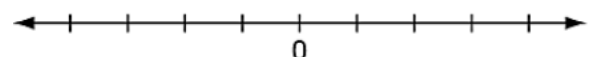
5. **6.NS.3.7**

Let n be an integer. Tracy claims that $-n$ must be less than 0. To convince Tracy that his statement is only sometimes true do the following:

- (1) Place n on the number line so that the value of $-n$ is less than 0.



- (2) Place n on the number line so that the value of $-n$ is greater than 0.



Day 2

1. 6.EE.2.7

Paul bought a package of 6 spiral notebooks for a total cost of \$13.50. Which equation represents, p , the cost in dollars, of each notebook?

- A. $p = 13.50 - 6$
- B. $p = 13.50 \times 6$
- C. $p = 13.50 + 6$
- D. $p = 13.50 \div 6$

2. 6.EE.2.8

Simone is going snowboarding tomorrow if the temperature is colder than 5°C .

Write an inequality to represent the temperatures, t , at which Simone will go snowboarding.

3. 6.RP.1.3

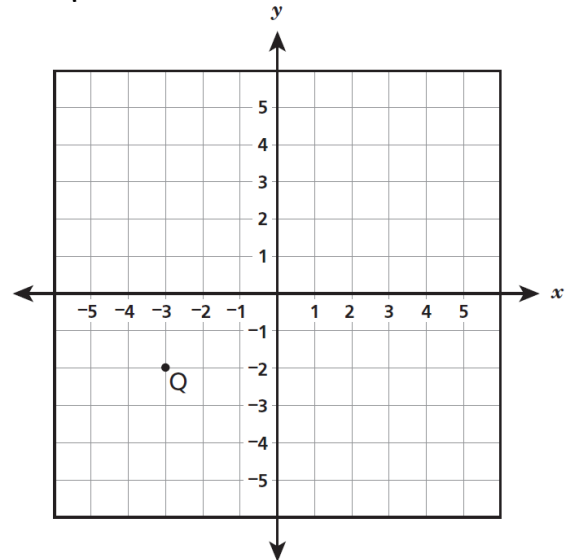
A dairy farmer uses two trucks to deliver milk. The two trucks use different kinds of fuel. Truck A uses gasoline and Truck B uses diesel. The table below shows the distance, in miles, that each truck can travel per gallon of fuel. Based on the table, what is the total number of gallons of diesel Truck B will use to travel 132 miles?

Miles Traveled per Gallon of Fuel

Gallons of Fuel	Truck A (Gasoline)	Truck B (Diesel)
1	8 miles	12 miles
2	16 miles	24 miles
3	24 miles	36 miles
4	? miles	48 miles
5	40 miles	60 miles

4. 6.NS.3.6

Point Q is shown on the coordinate grid below. Which statement correctly describes the relationship between the point $(-3, 2)$ and point Q?



- A. It is a reflection across the x-axis.
- B. It is a reflection across the y-axis.
- C. They are 6 units apart.
- D. They are 2 units apart.

5. 6.NS.3.7

A fish swims at an altitude of -20.2 meters. A bird flies at an altitude of 38.1 meters. Which of the following statements are true? Select all that apply.

- A. The bird's altitude is greater than the fish's altitude.
- B. The bird's altitude is less than the fish's altitude.
- C. The fish is closer to sea level than the bird.
- D. The fish is farther from sea level than the bird.
- E. The fish and the bird are the same distance from sea level.

Day 3

1. **6.EE.2.7**

What is the value of g ?

$$9g = 720$$

2. **6.EE.2.8**

Fishing Adventures rents small fishing boats to tourists for day-long fishing trips. Each boat can hold at most eight people. Additionally, each boat can only carry 900 pounds of weight for safety reasons.

Let p represent the total number of people. Write an inequality to describe the number of people that a boat can hold.

3. **6.RP.1.3**

A dairy farmer uses two trucks to deliver milk. The two trucks use different kinds of fuel. Truck A uses gasoline and Truck B uses diesel. The table below shows the distance, in miles, that each truck can travel per gallon of fuel. Gasoline costs \$4 per gallon and diesel costs \$5 per gallon. Which truck will have a lower fuel cost for a 24-mile trip?

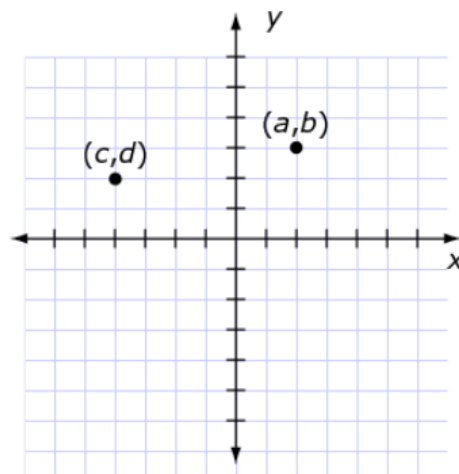
Miles Traveled per Gallon of Fuel

Gallons of Fuel	Truck A (Gasoline)	Truck B (Diesel)
1	8 miles	12 miles
2	16 miles	24 miles
3	24 miles	36 miles
4	? miles	48 miles
5	40 miles	60 miles

4. **6.NS.3.6**

Two ordered pairs are shown on a coordinate grid. Plot each listed ordered pair on its correct location on the coordinate grid.

- $(-a, b)$
- $(a, -b)$
- $(-c, -d)$



5. **6.NS.3.7**

Which value is closest to 0 on a number line?

- A. 12
- B. $|-12.5|$
- C. -11.75
- D. $|12.1|$

Day 4

1. 6.EE.2.7

Keon had some change in his pocket. Then a friend loaned him \$0.25. Now Keon has \$1.45 in his pocket. Which equation can be used to find the original amount of money m that Keon had in his pocket?

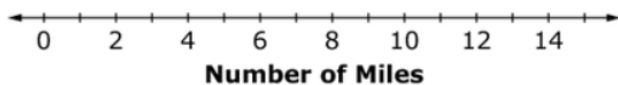
- A. $m + 0.25 = 1.45$
- B. $1.45 = m - 0.25$
- C. $m + 1.45 = 0.25$
- D. $m = 1.45(0.25)$

2. 6.EE.2.8

A boat takes 3 hours to reach an island 15 miles away. The boat travels:

- At least 1 mile but no more than 6 miles during the first hour
- At least 2 miles during the second hour
- Exactly 5 miles during the third hour

Draw a line that can show the range of miles the boat could have traveled during the **second** hour, given the conditions above.



3. 6.RP.1.3

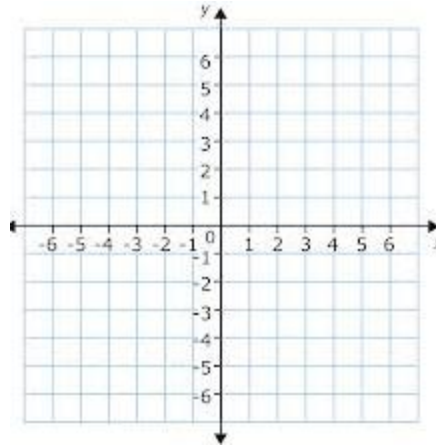
Ming is making cookies. To make 30 cookies, his recipe requires 3 eggs. Using this recipe, what is the total number of eggs he will need to make 120 cookies?

- A. 6
- B. 9
- C. 10

D. 12

4. 6.NS.3.6

Plot the points on the coordinate plane.
(3, -4), (-1, 1), (2, 0), (-5, -3)



5. 6.NS.3.7

Which statements below are true? Select all that apply.

- A. -4 is located to the right of -5 on a number line.
- B. 0 is located to the left of $2\frac{1}{4}$ on a number line.
- C. -6 is located to the left of -7 on a number line.
- D. $2\frac{3}{4}$ is located to the right of -2 on a number line.
- E. -1 is located to the left of -3 on a number line.

Day 5

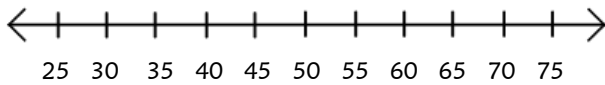
1. **6.EE.2.7**

What is the value of h ?

$$21 + h = 345$$

2. **6.EE.2.8**

Ricardo has a \$50 gift card for an electronics store. He also has a coupon good for \$10 off his purchase. Let a represent the amount of merchandise Ricardo can buy from the store using his gift card and coupon. Graph the solution set for a on the number line.

3. **6.RP.1.3**

Dwayne answered 80% of the questions on a quiz correctly. If he answered 40 questions correctly, what was the total number of questions on Dwayne's quiz?

- A. 32
- B. 50
- C. 60
- D. 120

4. **6.NS.3.6**

Lilly plotted the points $(-6, 4)$ and $(-2, 4)$ on a coordinate plane. Then she plotted their reflections across the x -axis. What are the locations of the reflected points?

5. **6.NS.3.7**

The table below shows the high temperatures for four cities on a day in January.

City	Elko	Winston	Pike	Belter
Temperature (°F)	-3	-9	-5	-7

Write the cities in order from the coldest high temperature to the warmest high temperature.

Day 1

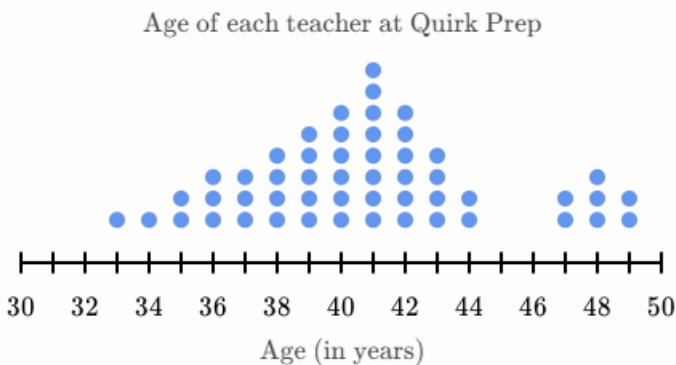
1. 6.SP.1.1

A statistical question is one where you expect to get a variety of answers. Determine whether each question can be classified as a statistical question. Select Yes or No for each question.

	Yes	No
How many hours a week do people exercise?		
How many hours are there in a day?		
How many rainbows have students seen this month?		

2. 6.SP.1.2

Which of the following are accurate descriptions of the data distribution shown below. Select all that apply.



- A. The mode is 41 years of age.
- B. The distribution has a cluster from 45 to 46 years of age.
- C. The distribution has a cluster from 47 to 49 years of age.
- D. The distribution has an outlier.
- E. The median age is 39 years.

3. 6.SP.1.3

The table below shows the points scored by Tabitha in her first four basketball games.

Game	1	2	3	4	5
Points Scored	8	4	13	11	

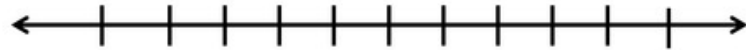
Tabitha's goal is to have a mean score greater than 10 points after the fifth game. What is the fewest number of points she needs to score to meet her goal?

4. 6.SP.2.4

Francis recorded his math quiz scores during the sixth grade.

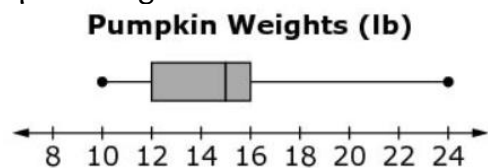
24, 20, 19, 22, 19, 23, 22, 17, 21, 21, 19, 21

Create a dot plot of Francis' data.



5. 6.SP.2.5

Look at the box-and-whisker plot of pumpkin weights. What is the **median** pumpkin weight?



- A. 12 lb.
- B. 14 lb.
- C. 15 lb.
- D. 16 lb.

Day 2

1. 6.SP.1.1

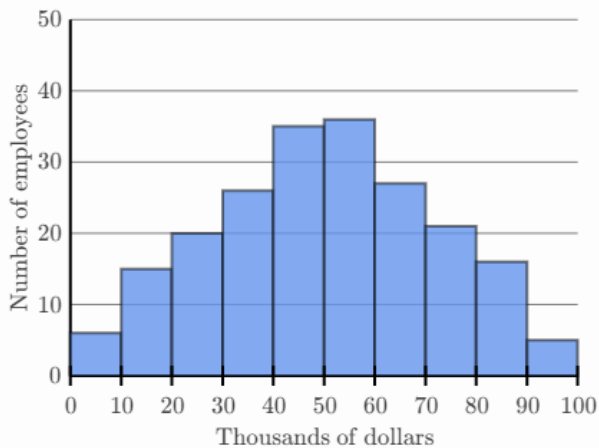
Which question has statistical variability?

- A. Do you own a bike?
- B. How many bikes are parked at the bike rack?
- C. What are the distances of my classmates' bike ride to school?
- D. How much did Andy's bike cost?

2. 6.SP.1.2

How can you describe the shape of the distribution of data below?

Salary for each employee at Megatron Inc.



- A. The distribution is skewed to the left.
- B. The distribution is approximately symmetrical.
- C. The distribution is skewed to the right.
- D. The distribution is uniform.

3. 6.SP.1.3

The weights of Andrew's cats are 8 pounds, 15 pounds, 18 pounds, 15 pounds, and 12 pounds. Which statements are true about the weights of Andrew's cats? Select the four that apply.

- A. The mean is 13.6 pounds.
- B. The median is 16 pounds.
- C. The range is 10 pounds.
- D. The mode is 15 pounds.
- E. The mean is greater than the median.
- F. The median and the mode are the same.

4. 6.SP.2.4

Marissa asked her classmates how many dollars they spent the last time they went to the store. The list below shows the amounts, rounded to the nearest dollar.

3, 8, 6, 11, 17, 3, 4, 4, 6, 5, 2, 18, 5, 6, 11, 5, 10

Create a box plot of Marissa's data.



5. 6.SP.2.5

There were 5 players in a game.

- 2 players scored 40 points **each**
- 2 players scored 50 points **each**
- 1 player scored 90 points

What was the mean number of points scored by the 5 players in the game?

- A. 36
- B. 50
- C. 54
- D. 60

Day 3

1. **6.SP.1.1**

Which question has statistical variability?

- A. What are the daily low temperatures from last month?
- B. What was the coldest temperature last month?
- C. What was the average temperature last month?
- D. How many days had high temperatures below 0°F in the last month?

2. **6.SP.1.2**

The following data represent the number of times a river has flooded per year for the past 10 years.

{4, 3, 3, 2, 10, 5, 4, 2, 8, 3}

What is the median of the data?

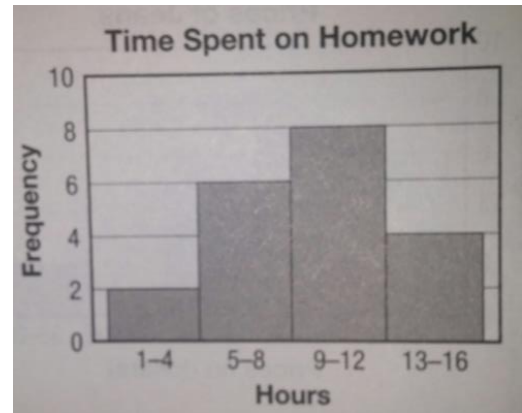
3. **6.SP.1.3**

Which of the following statements is **not** true?

- A. The median is a measure of the center of a data set.
- B. The mean is a measure of the variability of a data set.
- C. A dot plot shows the least and greatest values of a data set.
- D. A box plot shows the interquartile range of a data set.

4. **6.SP.2.4**

The histogram shows the number of hours that the students in one sixth-grade class spent on homework in one week.



Which statements below are true given the information in the histogram? Select all that apply.

- A. Three students spent 5-8 hours on homework.
- B. Four students spent more than 12 hours on homework.
- C. The interval with the greatest frequency is 9-12 hours.
- D. Six students spent less than 9 hours on homework.
- E. You **cannot** find the mode of these data.

5. **6.SP.2.5**

A salesperson records the number of miles she travels each week. The table below shows the number of miles the salesperson traveled each week for 5 weeks. What is the median number of miles traveled by the salesperson? Show or explain your reasoning.

Weekly Travel

Week	1	2	3	4	5
Number of Miles Traveled	216	210	250	225	209

Day 4

1. 6.SP.1.1

A baker is looking to gather information about the products sold at her bakery. Place a check mark next to each statistical question. Select all that apply.

- A.** How many bagels are in a dozen?
- B.** How many chocolate chips are in each muffin found in a box of muffins?
- C.** How many calories are there in each type of muffin sold at the bakery?
- D.** Do bagels have the same number of calories as muffins?
- E.** How many of each type of bagel was sold at her bakery today?

2. 6.SP.1.2

The following data represent the number of times a river has flooded per year for the past 10 years.

{4, 3, 3, 2, 10, 5, 4, 2, 8, 3}

What is the interquartile range of the data?

3. 6.SP.1.3

Circle the correct term in each box to correctly complete the statements below.

I. The interquartile range describes how data vary from the mean
median
mode.

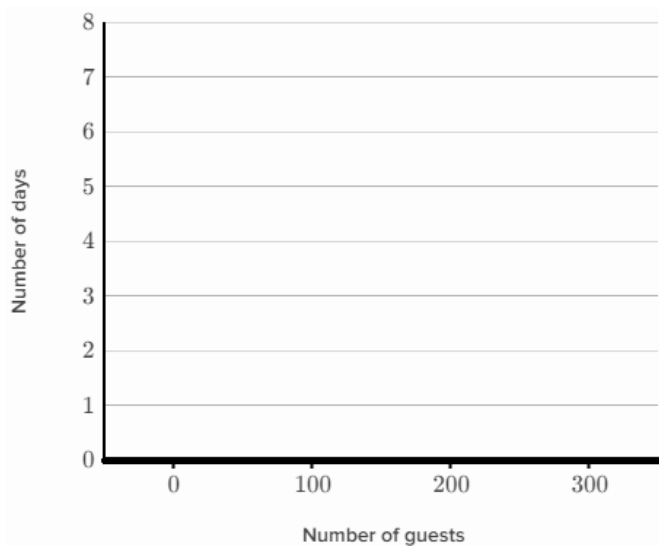
II. The mean absolute deviation describes how data vary from the mean
median
mode.

4. 6.SP.2.4

The following data points represent the number of guests at Hunter’s Ribeye BBQ House each day since they opened.

96, 279, 255, 254, 75, 211, 271, 291, 102

Display the data in a histogram.



5. 6.SP.2.5

A salesperson records the number of miles she travels each week. The table below shows the number of miles the salesperson traveled each week for 5 weeks. What is the mean number of miles traveled by the salesperson? Show or explain your reasoning.

Weekly Travel

Week	1	2	3	4	5
Number of Miles Traveled	216	210	250	225	209

Day 5

1. **6.SP.1.1**

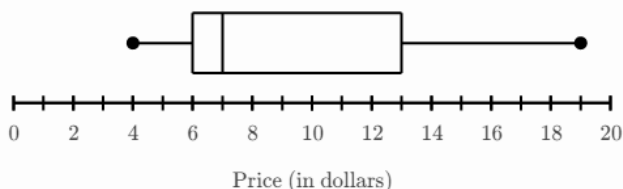
Nadia wants to use the question “Do you watch television every day?” to conduct a survey.

Is her question a statistical question? If yes, explain how you know. If not, how could she change the question so that it is?

2. **6.SP.1.2**

Which of the following are accurate descriptions of the data distribution shown below. Select all that apply.

Price of each order at Winstin’s Seafood Cafe



- A. The distribution is skewed to the left.
- B. The distribution is approximately symmetrical.
- C. The distribution is skewed to the right.
- D. The mean price is seven dollars.
- E. The median price is seven dollars.
- F. The interquartile range is seven dollars.

3. **6.SP.1.3**

Lynn sells homemade jewelry on the Internet. The list below shows prices for various types of jewelry on her website.

- Earrings – \$13
- Bracelets – \$10
- Necklaces – \$13
- Rings – \$7
- Watches – \$21

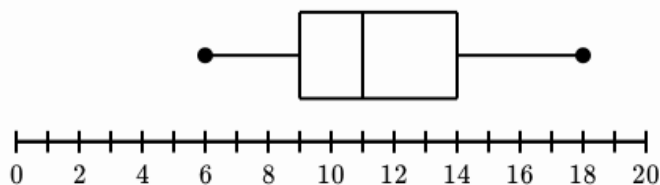
Which of these statements describes how the prices vary?

- A. The mean is \$12.80.
- B. The median is \$13.
- C. The mode is \$13.
- D. The range is \$14.

4. **6.SP.2.4**

Which question can be answered by reading the box plot?

Number of math problems assigned by Ms. O’Brien



- A. What is the mean?
- B. Which data value occurs most frequently?
- C. How many data values are there?
- D. Between which two numbers is the middle half of the data?

5. **6.SP.2.5**

A salesperson records the number of miles she travels each week. The table below shows the number of miles the salesperson traveled each week for 5 weeks. The salesperson plans to travel 402 miles in week 6. Which measure, median or mean, will change more when the number of miles for week 6 is included in the data? Show or explain how you got your answer.

Weekly Travel

Week	1	2	3	4	5
Number of Miles Traveled	216	210	250	225	209

Week 1 – Grade 6						
	Standard	Day 1	Day 2	Day 3	Day 4	Day 5
1	6.EE.1.1	C	12	$(3)^4 + 36$ or $(3)^4 + 6^2$	12 layers	11
2	6.NS.1.1	$<, \geq, \leq, <$	18 scarves	2 L	D	$\frac{2}{3}$
3	6.NS.2.2	477	11 ft.	348	48 R17	105 R23
4	6.NS.2.3	70.543	2.712	1.70829	7030	\$7.32
5	6.NS.2.4	7	24	18 students	$12(2 + 3)$	35

Week 2 – Grade 6						
		Day 1	Day 2	Day 3	Day 4	Day 5
1	6.EE.1.2	$3^3 + 5^3$	B	$2x - 7$	B	A
2	6.NS.3.5	positive	-2	B	A	A
3	6.NS.3.6	(-7, -4)	A	$\frac{35}{4}$ or $8\frac{3}{4}$	B	B
4	6.NS.3.7	F, T, F, T	A	F, T, T	D	D
5	6.NS.3.8	D	D	A	6 units	B

Week 3 – Grade 6						
		Day 1	Day 2	Day 3	Day 4	Day 5
1	6.EE.1.3	B	A	answers may vary Ex: $4x - 20$	A	$10x + 35$
2	6.EE.1.4	Yes...	They are equivalent because...	Jenna	A, B	Yes. In both cases the clerk ran up 4 bags of apples and 3 bags of grapes with a \$2 off deal.
3	6.EE.3.9	B	$y = 40 + x$	C	Missing time: 5 Missing distances: 80, 320 $d = 40h$	$x = 150 m$
4	6.G.1.1	A	168 cm ²	C	T, F, T, F	114 ft ²
5	6.G.1.2	4×9 ; 18×2 ; or 12×3	96 in ³	Ben is not correct...	D	$18\frac{3}{4}$ cm ²

Week 4 – Grade 6						
		Day 1	Day 2	Day 3	Day 4	Day 5
1	6.EE.2.5	D	A, D, E	$m = 7$	$m = 1$	B, C, D, E
2	6.EE.2.6	C	B	$2(7) + 15d + 9c$ or $15d + 9c + 14$	$26a + 16c$	B, A, C, B, A
3	6.EE.2.7	$x = 6$	C	A	Subtract 5, divide by 4, divide by 5, add 4	$35b = 665$ $b = 19$ boxes
4	6.EE.2.8	B	A	open circle at $1\frac{1}{2}$ with arrow going left	D	D

5	6.G.1.3	A	T, F, F, F, F	D	correct graph	46 units
---	---------	---	---------------	---	---------------	----------

Week 5 – Grade 6						
		Day 1	Day 2	Day 3	Day 4	Day 5
1	6.G.1.4	A	C	85 cm ²	8.64 cm ²	C
2	6.NS.1.1	A	B	B	$\frac{1}{2}$	10 cakes
3	6.RP.1.1	8:18 or 4:9	For every seven loaves of bread used, 2 of them were rye.	(12 shaded squares) 13:12	C	A, C, F
4	6.RP.1.2	\$1.50/tile	A	B	D	30 laps/hour
5	6.RP.1.3	C	B	450 words	38 miles	$287\frac{1}{4}$ mi

Week 6 – Grade 6						
		Day 1	Day 2	Day 3	Day 4	Day 5
1	6.EE.1.1	356	D	B	D	$(7 + 7^2) \div 7$
2	6.EE.1.2	178	A, D, E	B, F	45°C	B
3	6.EE.1.3	D	They are <u>not</u> equivalent...	B, F	answers may vary Ex: $4x^2$	B
4	6.EE.1.4	A, C	B, C, D	B, E	B	2, 7
5	6.EE.3.9	$d = 95t$	(correct graph)	512.5 miles	Missing table values: 25, 50, 75, 100, 125 $c = 25h$	\$325

Week 7 – Grade 6						
		Day 1	Day 2	Day 3	Day 4	Day 5
1	6.EE.2.5	Y, N, Y, N, N	B, C, D, E	A, C, D	A, D	D
2	6.EE.2.6	A	$2.5t + 10$; t represents the number of ride tickets purchased	A, C, D	$6f + 4.5(f - 1)$ or $6f + 4.5f - 4.5$ or $10.5f - 4.5$	41 in
3	6.NS.2.2	689	C	85 round tables	17	His answer is incorrect. He wrote the 8 in the wrong place value in his quotient.
4	6.NS.2.3	D	210 cubes	\$77.64	(2 and 5 tenths should be shaded)	0.1; He does not have enough wire. He needs 0.1 meter more.
5	6.NS.2.4	4:24 pm	B	B	$24 + 15 = 3(8 + 5)$ $42 + 60 = 6(7 + 10)$ $36 + 16 = 4(9 + 4)$	B

Week 8 – Grade 6

		Day 1	Day 2	Day 3	Day 4	Day 5
1	6.EE.2.7	A	D	$g = 80$	B	$h = 324$
2	6.EE.2.8	$h \geq 500$	$t < 5$	$0 < p < 8$	(correct graph)	(closed circle at 60 with arrow going left)
3	6.RP.1.3	32 mi	11 gal	Truck B	D	B
4	6.NS.3.6	(correct graph)	B	(correct graph)	(correct graph)	(-6, -4) and (-2, -4)
5	6.NS.3.7	(correct graph)	A, C	C	A, B, D	Winston, Belter, Pike, Elko

Week 9 – Grade 6

		Day 1	Day 2	Day 3	Day 4	Day 5
1	6.SP.1.1	Y, N, Y	C	A	B, C, E	No... (questions may vary)
2	6.SP.1.2	A, C	B	3.5	3-5	C, E, F
3	6.SP.1.3	12 points	A, C, D, F	B	I. median II. mean	D
4	6.SP.2.4	(correct graph)	(correct graph)	B, C, E	(correct graph)	D
5	6.SP.2.5	C	C	216 mi	222 mi	The mean will change more because...