

Summer Math Assignment

Students entering
7th Grade Regular and
7th Grade Accelerated
Math

Name: _____

Note: This will be collected during the first few weeks of school. Please complete this over the Summer, but do not bring it until directed by your Math Teacher.

Name _____ Date _____

Circle the correct answer, or fill in as directed.

1. What is the answer to the following equation?

$$3n + 7 = 40$$

- A. 3
- B. 12
- C. 11
- D. 15

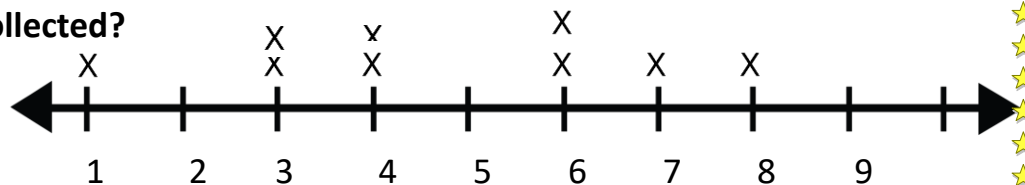
2. Solve for y if $64 = 8y$.

- A. $y = 8$
- B. $y = 10$
- C. $y = 4$
- D. $y = 9$

3. Which of the following points is located on the x-axis?

- A. $(-5, 0)$
- B. $(0, 3)$
- C. $(-7, 4)$
- D. $(9, 8)$

4. Denise has been collecting data regarding the ages of all the children that visit her local park. Below is a line graph that displays the data. What is the median of the data collected?



- A. 4
- B. 8
- C. 6
- D. 7

5. What is 20% of 90?

- A. 18
- B. 20
- C. 22
- D. 24

6. Emily is going to sell lemonade today. She is selling each cup for \$1.00. She has to spend \$0.25 to make 1 cup of lemonade. Today she made a profit of \$18.75. How many cups of lemonade did Emily sell?

- A. 18
- B. 20
- C. 25
- D. 27

7. Point A(-3,6) is reflected over the y-axis. Which of the following is the coordinate pair of the reflected point?

- A. (-3,-6)
- B. (3,-6)
- C. (3,6)
- D. (-3,6)

8. Anastasia received the following scores on practice math tests online.
79, 86, 81, 75, 93, 78, 87, 90, 80

What is her mean test score rounded to the nearest whole?

- A. 83
- B. 86
- C. 84
- D. 81

9. Jacob is fishing off a dock that is 5 ft above sea level. His line extends 32 ft before it hits the ocean floor. How deep is the water?

- A. 25 ft
- B. 32 ft
- C. 27 ft
- D. 5 ft

10. David's mom told him that if he scores higher than an 85/100 on his math test, she will take him to get ice cream. Which equation below represents this situation?

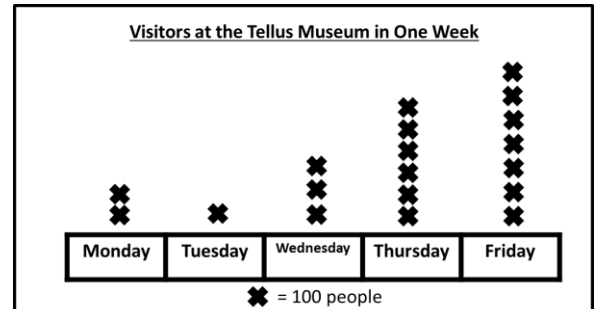
- A. $G \leq 85$
- B. $G > 85$
- C. $G < 100$
- D. $G > 100$

11. Point B is 10 units away on a coordinate plane from $(-2,9)$. Which of the following would be the coordinates for Point B?

- A. $(2,9)$
- B. $(10,9)$
- C. $(8,9)$
- D. $(2,18)$

12. What is the distribution of the line plot?

- A. Skewed Left
- B. Skewed Right
- C. Normal
- D. Bimodal



13. Jenny had \$224 dollars in her bank account. A bill for \$233 came out and left Jenny with -\$9 in her account. What is the absolute value of the money Jenny had in her account after the bill was paid?

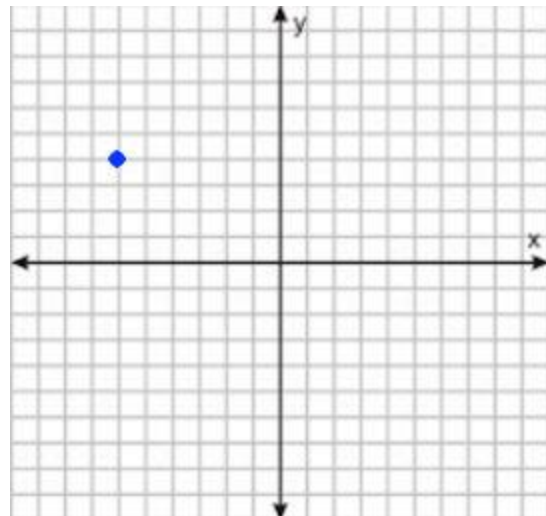
- A. 9
- B. -9
- C. $1/9$
- D. 0

14. Solve the expression $2a + 5b$ when $a=-4$ and $b=6$.

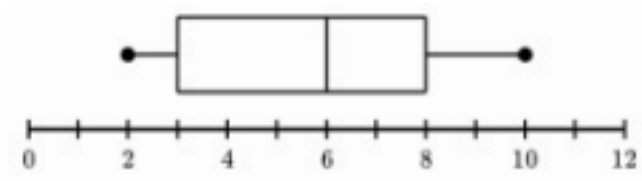
- A. -38
- B. -22
- C. 38
- D. 22

15. Lance plotted a point on a coordinate plane. If he were to reflect the point over the x-axis, which quadrant would it be located in?

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



16. A box plot is shown below.



What is the upper quartile of this data set?

- A. 2
- B. 8
- C. 6
- D. 10

17. What is the absolute value of the following equation?

$$|x| + 3 = 7$$

- A. 4, 4
- B. -4, 4
- C. -2, 2
- D. -4, 0

18. Which of the following algebraic expressions is equivalent to $3(4x+4)$?

- A. $-1x + 12$
- B. $16x + 16$
- C. $12x + 4$
- D. $12x + 12$

19. Wilma drew a rectangle that is 10 cm long and has a width of 5 cm. Then she divided the rectangle in half to form 2 identical right triangles.

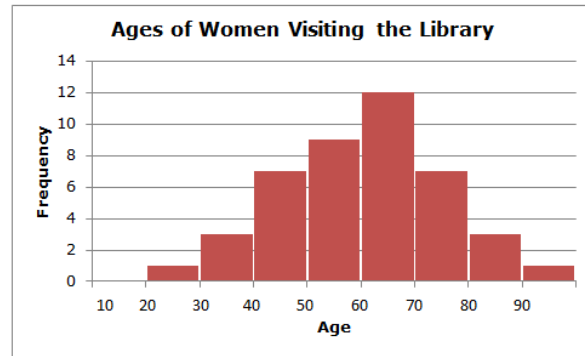
What is the area of each right triangle?

- A. 25 square cm
- B. 50 square cm
- C. 45 square cm
- D. 28 square cm

20. Use the histogram to answer the questions below.

Part A- How many times did women aged 50-70 visit the library?

- A. 9 times
- B. 7 times
- C. 21 times
- D. 2 times



Part B- How many times did women aged 70 and over visit the library?

- A. 11 times
- B. 10 times
- C. 3 times
- D. 15 times

21. What is $1,000 \times 0.956$?

- A. 9,560
- B. 956
- C. 95.6
- D. 9.56

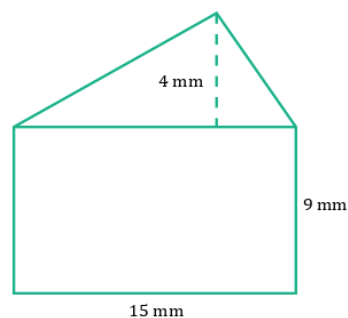
22. Which number makes the following inequality TRUE?

$$2x + 7 > 20$$

- A. $x=2$
- B. $x=3$
- C. $x=6$
- D. $x=7$

23. What is the area of the shape below?

- A. 100 sq mm
- B. 180 square mm
- C. 165 square mm
- D. 225 square mm



24. Patrick collected the measurements of all the shoe sizes of the boys in his class. If the mean of the data set he collected is 22, what is the missing number?

18, 28, 34, 25, 14, 21, 16, 22, 25, _____ ?

- A. 17
- B. 22
- C. 18
- D. 26

25. What is $\frac{1}{2} \times \frac{4}{5}$?

- A. $\frac{30}{10}$
- B. $\frac{5}{10}$
- C. $2 \frac{1}{2}$
- D. $\frac{2}{5}$

26. $-77 = 9x - 5$?

- A. $x = -8$
- B. $x = 9$
- C. $x = 8$
- D. $x = -9$

27. A right rectangular prism has a length of $8 \frac{1}{2}$ feet, a width of $4 \frac{1}{2}$ feet, and a height of 10 feet. What is the volume of the prism?

- A. $382 \frac{1}{3}$ cubic ft
- B. $382 \frac{1}{2}$ ft
- C. $382 \frac{1}{2}$ square ft
- D. $382 \frac{1}{2}$ cubic ft

28. Which of the following is an example of a statistical question?

- A. What is Ted's favorite season?
- B. What percentage of Ted's class plays sports?
- C. How many months are in a year?
- D. How many windows are on the Empire State Building?

29. Greg is looking to buy a new kayak that costs \$525.85. If he saves half of his allowance of \$50.00 each week, how many weeks would it take for him to save the money needed to buy the kayak?

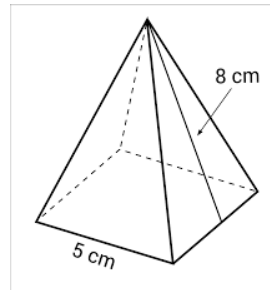
- A. 22 weeks
- B. 21 weeks
- C. 25 weeks
- D. 15 weeks

30. Solve for x.

$$8 = -2x$$

- A. 4
- B. -4
- C. 8
- D. -2

31. What is the surface area of the following figure?



- A. 100 square cm
- B. 40 square cm
- C. 105 square cm
- D. 98 square cm

32. Which of the following is the equivalent equation of $3a + 3b$?

- A. $3 + a(3+b)$
- B. $3(a) + 3(c)$
- C. $3(a+b)$
- D. $3a + (-3)b$

33. What is $14 + (-13)$?

- A. 0
- B. 1
- C. 2
- D. 3

34. What is the greatest common factor of 45 and 60?

- A. 180
- B. 22
- C. 15
- D. 4

35. Pamela types 90 words a minute. If she maintains the same rate, how many words will she type in 5 minutes?

- A. 450 words.
- B. 990 words.
- C. 180 words.
- D. 360 words.

36. What is the greatest common factor for 60 and 90?

- A. 15
- B. 30
- C. 45
- D. 60

37. Rewrite the following equation using the distributive property.

$$8 \times 25$$

- A. $8(20+5)$
- B. $8(20) + (5)$
- C. $25=8m$
- D. $20 + 8(5)$

38. Karen and Julie are both selling girl scout cookies. For every three boxes Karen sells, Julie sells five. Which ratio shows the number of boxes Karen sells to the number of boxes Julie sells?

- A. 5:8
- B. 8:5
- C. 5:3
- D. 3:5

39. What is the reciprocal of $1/7$?

- A. 7
- B. $1/7$
- C. 70
- D. 700

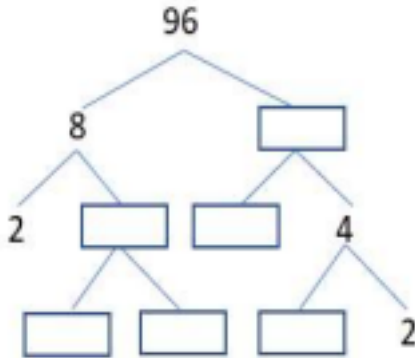
40. What is $5^{2^?}$

- A. 15
- B. 10
- C. 25
- D. 50

41. John takes 500 steps in 4 minutes. How many steps does he take in 6 minutes?

- A. 1000 steps
- B. 750 steps
- C. 800 steps
- D. 950 steps

42. Complete the tree factor.



43. Isabella is making brownies for her family. The table below shows how many ingredients she needs per batch. Please complete the table.

	Cocoa	Eggs
1 batch	$\frac{1}{2}$ cup	2
2 batches		
3 batches		

44. Which of the following is equivalent to $1\frac{3}{4}$?

- A. $1 \times \frac{3}{4}$
- B. 1%
- C. 2
- D. 1.75

45. Sandra is making a smoothie that consists of 86 grams of milk. The whole shake has 430 grams. What percent of her smoothie is milk?

- A. 40%
- B. 20%
- C. 10%
- D. 80%

46. What is $12 + (-15)$?

- A. -3
- B. 3
- C. 27
- D. -27

47. Allie has \$32.00 to spend on school supplies. After buying two notebooks, she has \$21.50 left. How much did she spend on each notebook?

- A. \$6.50
- B. \$10.25
- C. \$4.49
- D. \$5.25

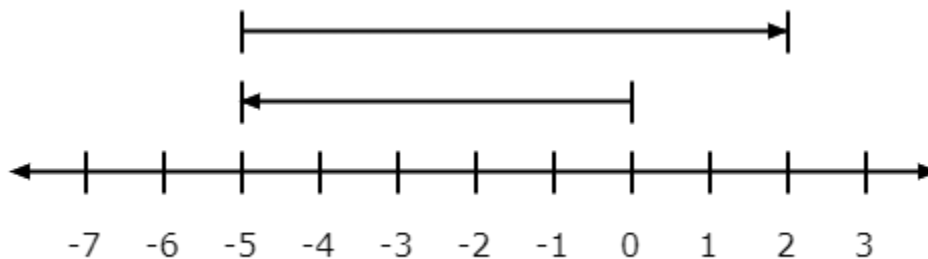
48. What is $-8 - (-8)$?

- A. 16
- B. -16
- C. 0
- D. 1

49. What is 40% of 80?

- A. 32
- B. 40
- C. 50
- D. 28

50. What equation represents the data shown on the following number line?



- A. $-5 + 7 = 2$
- B. $-7 + 5 = -2$
- C. $0 + 7 = 7$
- D. $0 + 5 =$

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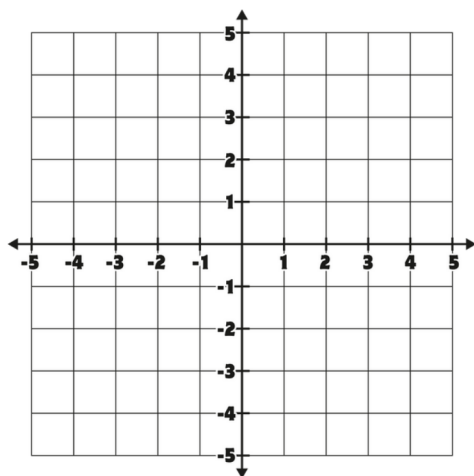
6TH GRADE MATH REVIEW 1

Solve each review problem. Show your work in the box.

Plot the points:

$(-4, 2)$ $(0, 2)$ $(0, -5)$ $(-4, -5)$

Find the perimeter of the rectangle.



Find the value of the expression if

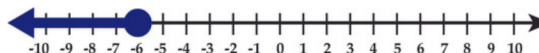
$r = 8$ and $f = 3$

$$\frac{4f + r}{-2}$$

Select all of the situations that can be represented by the integer -13 :

- a. Gavin deposits \$13 at the bank.
- b. The submarine was 13 feet below sea level.
- c. Katherine withdraws \$13 from her bank account.
- d. The temperature increases 13 degrees Celcius.
- e. The temperature decreases 13 degrees Celcius.

What inequality is modeled by the number line?



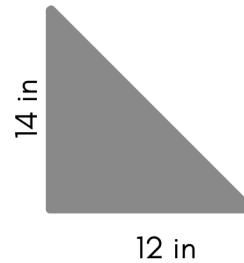
Name: _____ Date: _____

6TH GRADE MATH REVIEW 2

Solve each review problem. Show your work in the box.

12 is 40% of what number?

Find the area of the triangle:



Find the mean of the following set of test scores: 92,75,56,56,89

What is the Greatest Common Factor (GCF) of 8 and 12?

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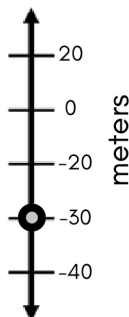
6TH GRADE MATH REVIEW 3

Solve each review problem. Show your work in the box.

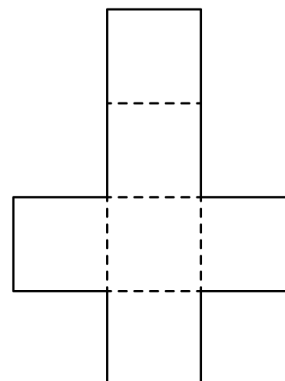
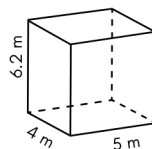
A scuba diver descends from sea level to the location shown on the number line.

Select all of the true statements:

- a. The diver's elevation is -30 m.
- b. The diver descended $|-30|$ m.
- c. The diver descended -30 m.
- d. The distance from 0 to the point on the line is -30 m.
- e. The distance from 0 to the point on the line is 30 m.



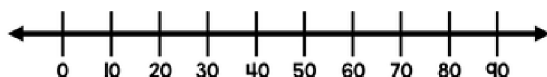
Use the net to find the surface area of the right rectangular prism:



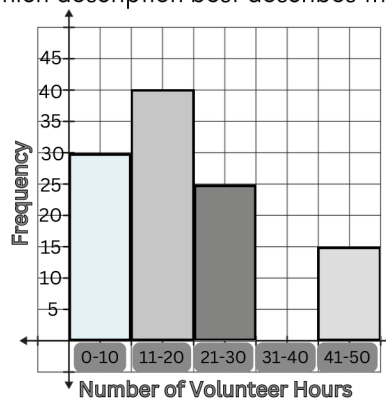
A survey was taken to find out how much a typical student paid for their school supplies.

Results: 65, 55, 80, 5, 51, 12, 8, 43, 50

Use the number line to create a box plot for the data set.



The histogram represents the volunteer hours for the members of the 6th grade community service club. Which description best describes the data?



- a. The distribution is skewed right.
- b. The distribution is skewed left.
- c. Most students volunteered 40–50 hours.
- d. The distribution is symmetric.

Name: _____ Date: _____

6TH GRADE MATH REVIEW 4

Solve each review problem. Show your work in the box.

What is the Least Common Multiple (LCM) of 8 and 6?

Put the following numbers in order from greatest to least:

-2.1 , 7% , -3 , -42% , $\frac{1}{2}$, 1.2

Find the median of the following set of test scores: 92, 75, 56, 56, 89

Rewrite 120 as a product of prime factors (prime factorization).

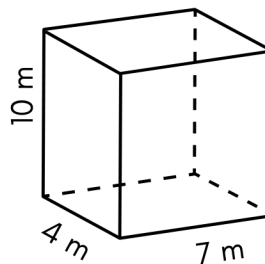
Name: _____ Date: _____

6TH GRADE MATH REVIEW 5

Solve each review problem. Show your work in the box.

Aria has finished 25 percent of her homework which has 84 questions in all. How many questions has Aria finished? (*What is 25% of 84?*)

Find the volume of the right rectangular prism:



Solve for n .
 $201 = 3n$

A teacher is making treat bags with candy eggs. She wants all of the bags to be exactly the same with an equal amount of each color in the bags. There are 24 blue eggs, 18 pink eggs, and 36 yellow eggs. Using all of the candy eggs, how many treat bags can the teacher make? What is the greatest number of each color that can be in the bags?

Name: _____ Date: _____

6TH GRADE MATH REVIEW 6

Solve each review problem. Show your work in the box.

Write an expression to represent the following situation:
"5 more than three times a number"

Find the value of the expression:

$$\left(\frac{4}{3}\right)\left(\frac{2}{6}\right)$$

Find the range of the following set of test scores: 92, 75, 56, 56, 89

The ratio of dogs to cats at the shelter is 3 to 2. If there are 48 dogs, how many cats are at the shelter?

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6TH GRADE MATH REVIEW 7

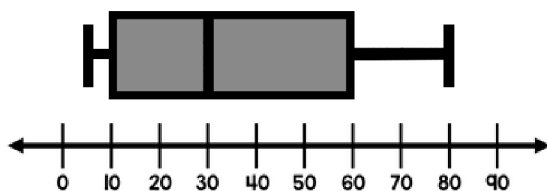
Solve each review problem. Show your work in the box.

If you divide a rectangle into 20 sections and you shade 9 of the sections, what percent will be modeled by the shaded rectangle?

Use the distributive property to simplify the expression:

$$5(2n + 3)$$

What is the median represented on the box plot?



What is the distance on the coordinate plane between the ordered pairs $(-4, -2)$ and $(11, -2)$?

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6TH GRADE MATH REVIEW 8

Solve each review problem. Show your work in the box.

Garrett had less than eight dollars in his wallet. Write an inequality to represent this situation.

Find the value of the expression if

$$a = -1 \text{ and } b = 14$$

$$a + (b + 3)(a)$$

Solve for x .

$$x - 213.97 = 48.1$$

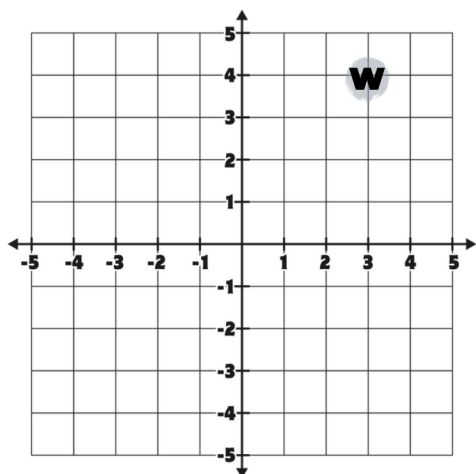
What is the distance on the coordinate plane between the ordered pairs $(5, -2)$ and $(5, -10)$?

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6TH GRADE MATH REVIEW 9

Solve each review problem. Show your work in the box.

What are the coordinates of W' as a reflection across the y -axis?



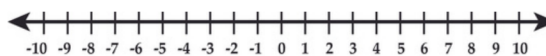
At the county fair, every 10th visitor gets a free t-shirt and every 18th visitor gets a free ride ticket. Which visitor will be the first person to get both a free t-shirt and a free ride ticket?

Select all of the statements that are true:

- a. $|-15| = -|15|$
- b. $|2| < |-8|$
- c. $|2| > |-8|$
- d. $|7| = |-7|$
- e. $|7| > |-7|$
- f. $|-5| < -|-2|$

Graph the number line to represent the inequality:

$$x > 1$$



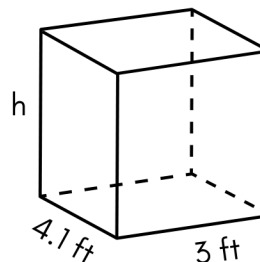
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6TH GRADE MATH REVIEW 10

Solve each review problem. Show your work in the box.

The principal has 112 ice cream coupons to reward students with. She has already given away 14 of the coupons. What percent of the ice cream coupons has she given away to the students so far?
(14 is what percent of 112?)

The volume of the rectangular prism is 98.4 cubic feet. Find the height.



A dolphin swam 12 feet below sea level. Write an integer to represent this situation.

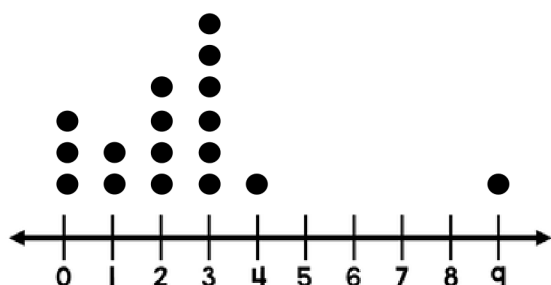
Silas rode his bike for 90 minutes and he traveled 15 miles. What unit rate did he travel in miles per hour?

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6TH GRADE MATH REVIEW 11

Solve each review problem. Show your work in the box.

The line plot represents the number of free throws made by a basketball team so far this season. What is the median number of free throws made?



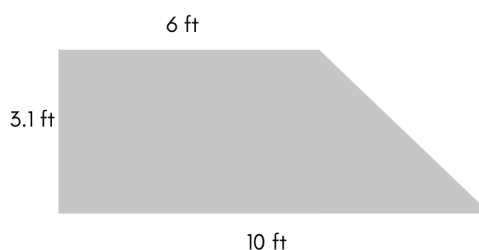
A hot dog at the carnival costs \$5. This is 3 dollars more than a popcorn. Which equation could be used to find the price of a popcorn (p)?

- a. $p - 3 = 5$
- b. $p + 3 = 5$
- c. $3p = 5$
- d. $\frac{p}{3} = 5$

Select all of the inequalities that have -1 as a solution:

- a. $5 + x < 8$
- b. $x < -8$
- c. $2 - x > -1$
- d. $4x < 3 + 4$
- e. $7 > x - 7$
- f. $-5 < x - 5$

Find the area of the composite figure:



Name: _____ Date: _____

6TH GRADE MATH REVIEW 12

Solve each review problem. Show your work in the box.

A cube has a side length of 3 cm.
What is the volume of the cube?

Find the value of the expression:

$$5^2 + 2^2$$

Solve for x .

$$84 + x = 113$$

The ordered pair $(-3, 4)$ was plotted on the coordinate plane. What will be the new ordered pair after the point is reflected across the x -axis?

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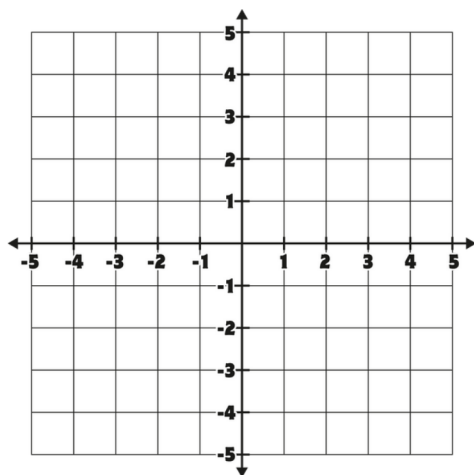
6TH GRADE MATH REVIEW 13

Solve each review problem. Show your work in the box.

Plot the points:

(2,1) (-3,1) (-3,-2) (2,-2)

Find the area of the rectangle.



Find the value of the expression if

$x = 4$ and $y = 2$

$$\frac{x^2 - 10}{y}$$

Selah walked $\frac{5}{4}$ miles on Monday.
She walked $\frac{7}{4}$ miles on Tuesday.
If she wants to walk a total of 5 miles this week, how many more miles will she still need to walk?

Write an expression to represent
"w is increased by 5"

Name: _____ Date: _____

6TH GRADE MATH REVIEW 14

Solve each review problem. Show your work in the box.

A cube has a side length of 3 cm.
Find the surface area of the cube.

Find the value of the expression:

$$4 - (-10) + 5$$

Alejandro has 20 dollars to spend
at the movie theater for his snacks.

Using the variable s for snacks,
write an inequality to represent the
situation.

There are 3 green marbles for every
5 yellow marbles in a bag. There is
a total of 15 green marbles in the
bag. How many total yellow and
green marbles are in the bag?

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6TH GRADE MATH REVIEW 15

Solve each review problem. Show your work in the box.

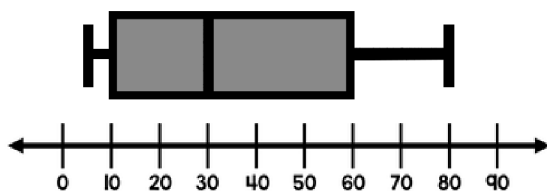
Which expressions are equal to 2^5 ?

- a. $(5)(2)$
- b. $(2)(2)(2)(2)(2)$
- c. $(5)(5)$
- d. 32
- e. $2 + 2 + 2 + 2 + 2$
- f. $(2)(5)$

What value of m makes the equation true?

$$60 = -5m$$

What is the interquartile range of the data represented on the box plot?



What is 150% of 30?

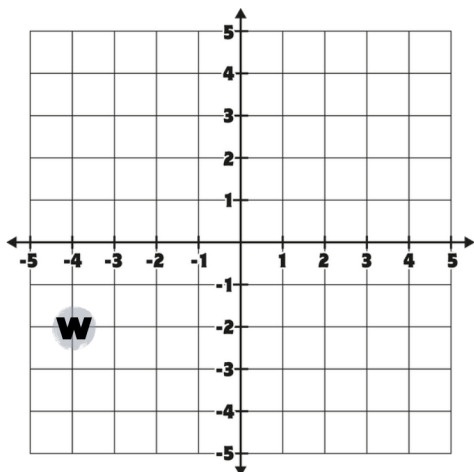
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6TH GRADE MATH REVIEW 16

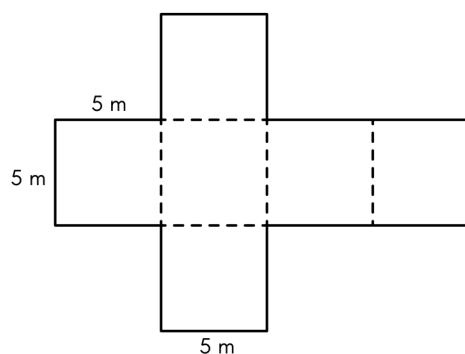
Solve each review problem. Show your work in the box.

What are the coordinates of point W?

What quadrant is it located?



This is the net for which three-dimensional shape?



Select all of the statistical questions:

- a. How many minutes does a typical student read each night?
- b. How many pints are in a gallon of milk?
- c. How many teachers work at the middle school?
- d. How many cell phones does the average household own?
- e. How many toppings does the typical student like on pizza?

A store sells bags of trail mix. The ratio of cashews to raisins in the trail mix is 11 to 5. If there is 60 raisins in the large bag of trail mix, how many cashews will be in the bag?

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6TH GRADE MATH REVIEW 17

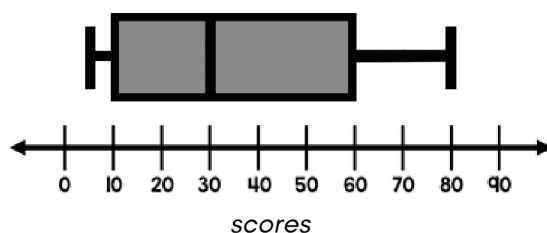
Solve each review problem. Show your work in the box.

Which expressions are equal to $48 + 32$?

- a. $8(6 \times 4)$
- b. $16(3 + 2)$
- c. $8(6) + 8(4)$
- d. $6(8 + 32)$
- e. $16(3) \times 16(2)$
- f. $8(6 + 4)$

One ticket at the movie theater is \$9. On Tuesday, if you buy one ticket, you can buy a second ticket for 50% off. What is the cost of 2 movie tickets on Tuesday?

What is the data interval for the top 25% of the test scores represented on the box plot?



The length of a rectangle is twice its width. If w represents the width, which expression represents the perimeter of the rectangle?

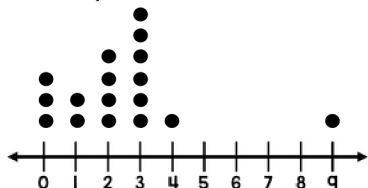
- a. $2w + 2w + 2w + 2w$
- b. $2(2w)$
- c. $4w$
- d. $w + w + 2w + 2w$

Name: _____ Date: _____

6TH GRADE MATH REVIEW 18

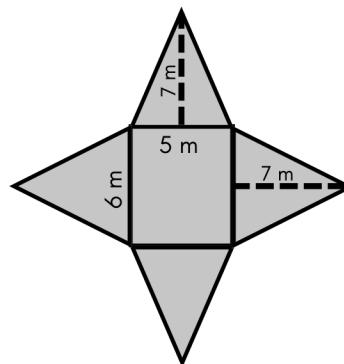
Solve each review problem. Show your work in the box.

The line plot represents the number of free throws made by a basketball team so far this season. Which descriptions correctly describe the data?



- a. There is a cluster at 6 free throws.
- b. There is an outlier at 9 free throws.
- c. There is a peak at 3 free throws.
- d. The distribution is symmetric.
- e. Three players made no free throws.

Use the net to find the surface area of the right rectangular pyramid:



Select all the situations that describe a unit rate:

- a. 4 pencils for every pen
- b. 12 cats for every 3 dogs
- c. 5 dollars for every half hour
- d. 3 homework pages per day
- e. 25 gallons of gas for each mile
- f. 120 seconds per 2 minutes

Find the value:

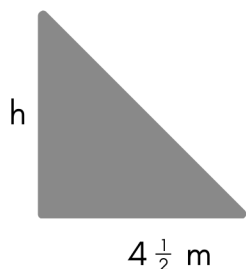
$$24.06 \div 3$$

Name: _____ Date: _____

6TH GRADE MATH REVIEW 19

Solve each review problem. Show your work in the box.

If the area of the triangle is 9 square meters. What is the height of the triangle?



Select all of the values that are equivalent to $1\frac{3}{5}$:

- a. 1.6
- b. 135%
- c. $\frac{8}{5}$
- d. 1.35
- e. 160%
- f. $\frac{13}{5}$

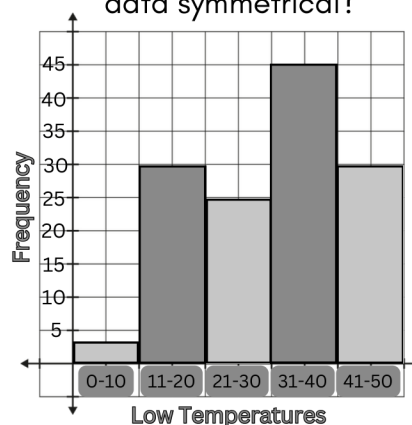
The school store sells supply boxes with the supplies shown in the table.

What is the ratio of pens to total supplies in the box?

- a. 2:18
- b. 2:16
- c. 2:6
- d. 2:10

Supply	Quantity
Pens	2
Pencils	6
Erasers	10

The histogram represents the average low temperatures each day for one winter season for a particular city. Is the data symmetrical?



Name: _____ Date: _____

6TH GRADE MATH REVIEW 20

Solve each review problem. Show your work in the box.

Kristina recorded all of her scores on math tests for the school year.

The scores were:

95, 80, 100, 22, 95, 90, 70, 85, 95

Are there any outliers in the data set? If so, what is the outlier?

- a. 100
- b. 95
- c. 22
- d. There are no outliers

Kristina recorded all of her scores on math tests for the school year.

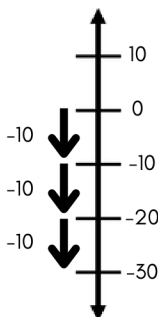
The scores were:

95, 80, 100, 22, 95, 90, 70, 85, 95

How would the measures of center change if the highest and lowest scores are dropped from the data set?

Which expressions can be modeled by the number line?

- a. -30 (3)
- b. 10 (3)
- c. -10 (3)
- d. -10 (-3)
- e. 3 (-10)



Eli rode his bike 20.5 kilometers last week. This week he rode his bike 19 kilometers. How many more meters did he ride last week?