Rising 7th Grade Math - SUMMER
Assessment A (Open-ended)

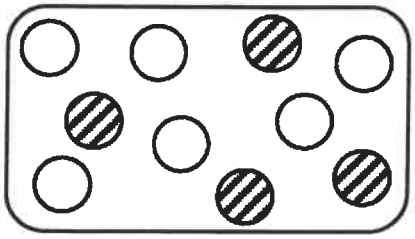
Name _____

Date _____ Pd _____

# Rising 7th Grade Summer Math Practice (6th Review)

Solve the problems below, and be sure to show all work.

1. The picture represents marbles that Jake has in a pouch. What is the ratio of striped marbles to total marbles?



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2. Anabelle is making bracelets for the girls in her class. She has $2\frac{1}{2}$ feet of string and each bracelet uses $\frac{2}{3}$ ft of string. How many bracelets can Anabelle make with the current amount of string she has?

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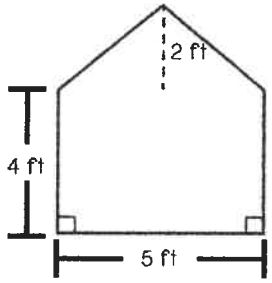
3. The back of a doghouse Rylan is building is shown below. Find the total area.

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4. Find the value of the expression below. Express your answer as a fraction.

$$\left(\frac{1}{2}\right)^4$$

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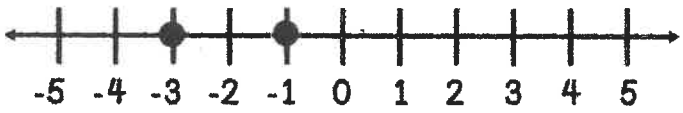
5. Write an inequality to compare the two values plotted on the number line below.

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6. Determine if the following question represents a statistical question:

"How many total customers were at the store today?"

_____

Solve the problems below, and be sure to show all work.

7. Hannah is filling a 15-gallon cooler with water. The cooler is filling at a rate of 2.5 gallons every 90 seconds. At this rate, how many seconds will it take to fill the entire cooler?

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8. Christopher spent a total of $52.50 at a bookstore. He purchased a calendar for $9 and three books that each cost the same amount. Write an equation that could be used to find *b*, the amount of each book he purchased.

_____

9. Kayla joined a soccer team and went shopping for some of the equipment she needed. She purchased a soccer ball for $24.99, new cleats for $50.79 and new shin guards for $11.77. What was the total of Kayla's purchase?

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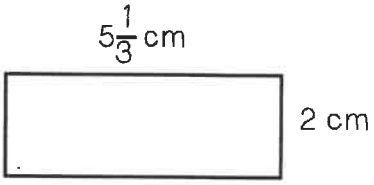
10. The rectangle below represents the base of a rectangular prism. If the height of the prism is 6 centimeters, find the total volume of the prism.

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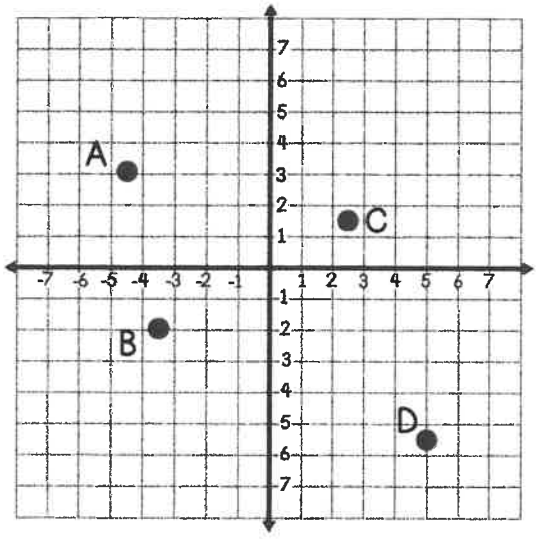
11. Write an ordered pair to describe the approximate location of point B.

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12. The following list shows the number of new memberships that a gym has sold each day over the past week:

4, 2, 9, 2, 0, 3, 8

Find the median value of the data set.

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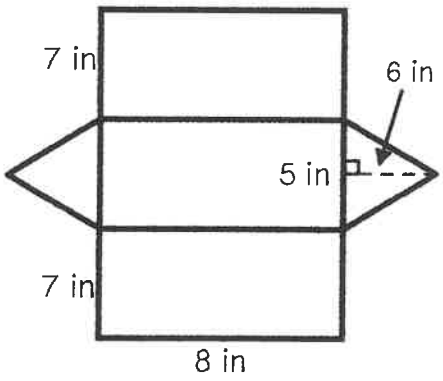
Solve the problems below, and be sure to show all work.

13. A warehouse is distributing 1,080 blocks into 24 different packages for shipment. If each of the packages will hold the same number of blocks, how many blocks are in a single package?

14. Use the distributive property to write an expression that is equivalent to $x \cdot 65$.

15. Find the surface area of the triangular prism using the net shown.




16. The two ordered pairs represent the endpoints of a line segment. Find the length of the line segment and state whether it is a horizontal or vertical line on the coordinate plane.

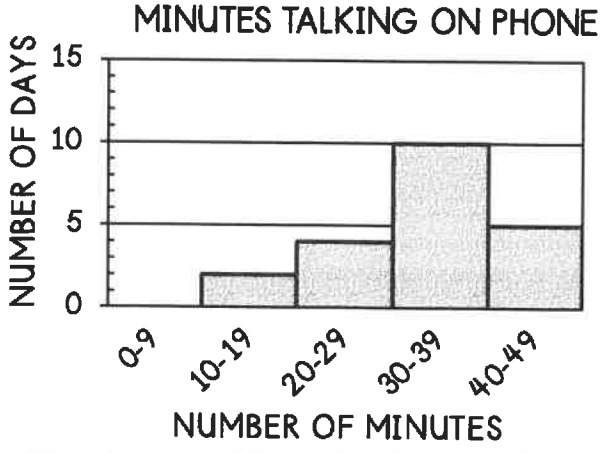
(7, -2) and (-3, -2)

17. Determine if $x = 2$ would be included in the solution set of the inequality below:

$$x - 2 \leq 4$$

18. Rusty can ride his bicycle 21 miles in 3 hours. Find the unit rate of the situation.

19. The histogram shows the number of minutes that Carol spent talking on the phone each day over the last few weeks. On how many of the days did Carol talk for 30 minutes or more?



Solve the problems below, and be sure to show all work.

20. List all of the coefficients in the expressions below.

$$10 + x^3 + 4x + 3y$$

21. Leon and his two friends bought a container of gumballs and split them evenly between themselves. Each friend got to keep 18 gumballs. How many gumballs were in the container?

22. Keith's middle school cafeteria repeats its menu every 12 days. Robert's middle school cafeteria repeats its menu every 16 days. Both middle schools are serving chicken nuggets today. In how many days will they both be serving chicken nuggets again?

23. James scored the following points per game in the last five basketball games he played:

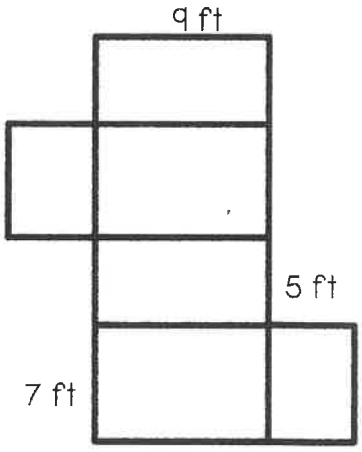
31, 20, 27, 19, 28

Find the mean absolute deviation of the number of points scored.

24. Complete the inequality statement with < or > in order to make the statement true.

$$\left|-\frac{1}{5}\right| \_\_\_\_ -\frac{1}{5}$$

25. Find the surface area of the rectangular prism using the net shown.



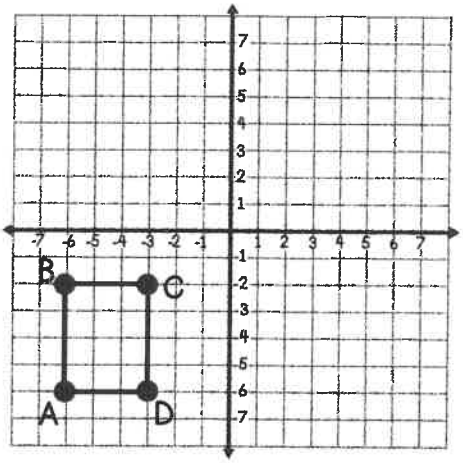

26. Trish is shopping for a new vacuum online. The reviews for the vacuum she wants show that 104 people gave the product 5-stars. If this number represents 65% of the reviews left for the product, how many total reviews were left for the product?

Solve the problems below, and be sure to show all work.

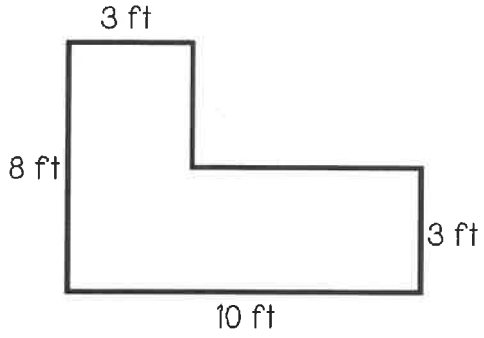
27. What is the value of the expression below if $c = 5$ and $d = 7$?

$$2c^2 - 5d$$

28. Rectangle ABCD is going to be reflected over the x-axis. At which ordered pair will point C be located after the reflection?




29. Jacob is pouring concrete for a sidewalk in the shape below. Find the area that will be covered by concrete.




30. The table shows the relationship between the number of minutes Ted has driven, $m$, and the total distance he has traveled, $d$, in miles.

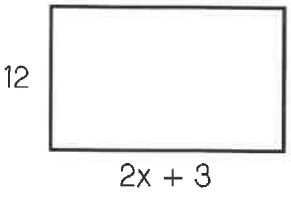
| MINUTES ($m$) | 10 | 18 | 25 | 50 |
|---|---|---|---|---|
| DISTANCE ($d$) | 5 | 9 | 12.5 | 25 |

Write an equation to represent the relationship in the table.

31. The book fair is selling erasers for \$0.17 each. If Brandon spent a total of \$2.21 on erasers, how many erasers did he purchase?

32. Patty had 120 clothing items in her closet, and she chose to take $\frac{1}{5}$ of her items to a donation center. How many clothing items did Patty donate?

33. If the area of a rectangle can be found by multiplying the length times the width, write a simplified expression for the area of the rectangle shown.



Solve the problems below, and be sure to show all work.

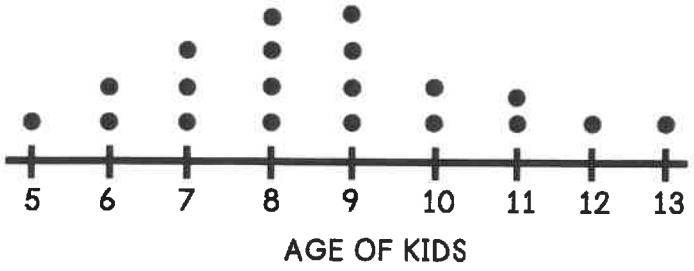
34. Write the integer that could be used to express each of the scenarios below.

_____a. A new species of fish is discovered 15 feet below sea level

_____b. A customer deposits $32 into their savings account

_____c. You earn 11 points for your team during a basketball game

35. The ages of the kids currently at a trampoline park are shown on the dot plot. Describe the overall shape of the data as either symmetrical, skewed left or skewed right.

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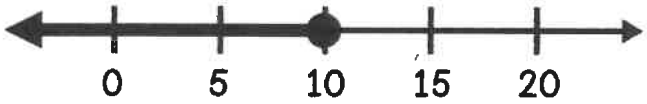
36. Write an inequality to describe the number line below.

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37. On a coordinate plane, Katie's house can be represented by the point (4, 6) and the park can be represented by the point (4, -3). If each unit on the graph represents 1.5 miles, how many miles is Katie's house from the park?

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38. A local car dealership sells new and used cars. The total number of cars currently at the dealership is 114. The dealership reported that they have 5 new cars for every 1 used car on the lot. How many total used cars are currently on the lot?

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39. Charlie weighed 8 pounds 11 ounces at birth. Given that one pound is equivalent to 16 ounces, what is Charlie's birthweight expressed in ounces?

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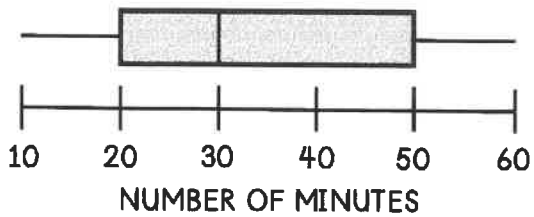
40. Students in Mr. Fargo's class tracked the number of minutes that they spent on homework the night before. The box plot shows the results. About what percentage of the students spent 20 minutes or more on their homework?

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