1. Use ratio language to describe the relationship given below:

8 cupcakes : 4 pies

2. Jaime has 4.5 cups of milk. Each batch of cookies she is making will require ¼ of a cup of milk. How many batches of cookies can Jaime make with the milk she has?

3. Write an expression that would help you solve the problem below.

Hunter cuts a 16.5 foot long piece of wood into x pieces.
How long is each piece of wood?

Solve: How long is each piece of wood if Hunter cuts the original piece into 6 pieces?

4. You have x chocolate chip cookies and 14 peanut butter cookies. Write an expression to represent how many cookies you have.

5. A fish tank is 10 inches long, 12 inches wide and 15 inches tall. If it is filled ¾ of the way with water, what is the volume of the water in the fish tank?

6. Which of the given values makes this inequality true? *Hint: there is more than one correct answer.*

$4x \leq 20$

a) x = 4
b) x = 5
c) x = 6
d) x = 7

7. Complete the table of ratios.

3	12
6	24
9	
	48

8. Use the distributive property to write an expression equivalent to:

$8(2 + q)$

9. What is the relationship between -3 and 3 in terms of their placement on a number line?

10. Erik drove 58 miles per hour for 2¾ hours. Use the equation below to determine how far he drove.

$D = r \bullet t$

D = distance, r = rate of speed, t = time

11. Is 874 divisible by 3? Explain why or why not.

12. You read 14 books over an 8 day period. If you continue reading at the same rate, how many books will you have read after 20 days?

13. Why is the absolute value of a number always positive?

14. Given the data:

13 , 3 , 5 , 9 , 7 , X , 9 , 4

If the range is 13, give an example of a number that X could be.

15. Which two expressions are equivalent?

a) 8x + 24

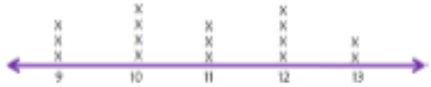
b) 8(x + 24)

c) 8x + 3

d) 8(x + 3)

16. What is the greatest common factor among 40 and 62?

17. The line plot represents the ages of kids trying out for a basketball team. Does the data appear to be skewed in either direction or symmetrical?



18. Write the expression below using exponents.

3 x 3 + 8 x 8 x 8

19. Create a dot plot of the snowfall totals.

12	9	20	22	18	14	9	11
10	15	21	14	12	16	9	18
14	9	13	15	10	12	10	22

20. Determine the average snowfall total (in inches) of the data in problem #19.

21. $168 worth of strawberries were purchased by a bakery. The cost of one container of strawberries is $3. How many containers of strawberries were purchased?

22. How many vertical units are between the points (-2, 8) and (-2, -6) on a coordinate plane?

23. Display the test scores in a box plot.

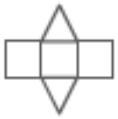
50	70	82	85	100
90	75	96	99	85
72	84	62	96	62

24. Use the same test scores in #23 to create a histogram.

25. Jen ran x miles last week and 8 miles this week. Write an expression to represent the total number of miles Jen ran over the last two weeks.

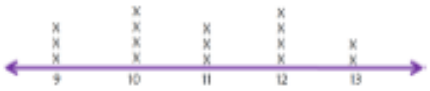
Solve: If she ran 24 miles over the last two weeks, how many did she run last week?

26. What three dimensional shape can be made using the net below?



27. Emily purchased a pack of 8 rolls of paper towels for $12.48. What was the cost per roll?

28. June makes $8 for each dog she walks. She walked *d* dogs yesterday. Write an expression to represent how much money she made walking dogs yesterday.

29. Use the distributive property to write an addition sentence equivalent to: $6(3 + 2)$	30. Write a statistical question about the preferred sport of 6th grade students.
31. Find the quotient. Write your answer as a proper fraction, whole number or mixed number. $\frac{4}{5} \div \frac{2}{3}$	32. Write an expression that would help you solve the problem below. One bottle of soda costs \$0.99. You buy b bottles. How much do you spend on soda? Solve: How much do you spend on soda if you buy 15 bottles?
33. The line plot represents the ages of kids trying out for a basketball team. What is the average age?  	34. Jason paid \$7.92 for 18 pounds of bananas. How much does one pound of bananas cost?
35. Write an expression equivalent to: $r + r + r + 4 + 4 + 4 + 4 + 4$	36. Determine the mean of the shoe sizes. Explain what the mean represents in the context of the situation. 9 , 11 , 9 , 6 , 5 , 7 , 9
37. In your class, 4 girls have blue eyes, 5 boys have blue eyes, 6 girls have brown eyes, and 7 boys have brown eyes. Compare the number of girls who have blue eyes to the number of girls who have brown eyes using the difference. Write your answer as a sentence.	38. Is the question below statistical? Explain. What is your favorite food?
39. During the winter, the temperature can drop as low as -6°. In the summer, the high can reach up to 92°. What is the difference between the warmest summer temperature and the coldest winter temperature?	40. Each adult at a play purchased a \$15 ticket (x). Each child ticket (y) was \$10. The total amount made in ticket sales was \$15,395. This situation is represented in the equation below. $15x + 10x = 15{,}395$ How many adult tickets were sold if 500 children were in the theater?
41. Which is the better deal? 2 pounds of apples for \$2.45 5 pounds of apples for \$7.60	42. Evaluate: $6^2 + 9^3$

43. Travis has $55.70 on his gift card. He purchases a shirt for $19.25 and a video game for $29.99. How much is left on his gift card now?

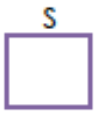
44. Plot the numbers.

-2 , 1 , 3 , -1 , -4

45. Label the fractions on the number line.

$\frac{4}{5}$ $\frac{1}{4}$ $\frac{2}{3}$ $\frac{1}{2}$

46. Write an expression to show how you would find the perimeter of the square.



47. You are selling hotdogs for $3 and cheeseburgers for $5. You need to make at least $40 to make back the money you spent to make the food.

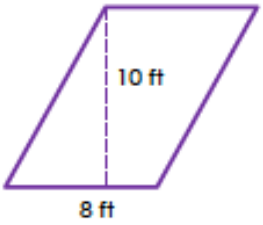
Write an inequality to represent this situation.

Solve: If you sell 6 hotdogs, how many cheeseburgers do you need to sell in order to make your money back?

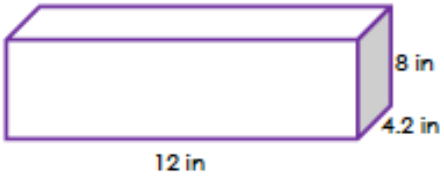
48. Which is the dependent variable? What does the dependent variable mean in the context of the problem?

Books purchased	Total cost
1	$8
2	$16
3	$24
4	$32
5	$40

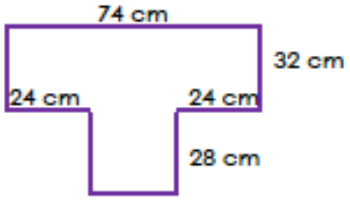
49. Find the area of the shape below.



50. Determine the volume of the prism.



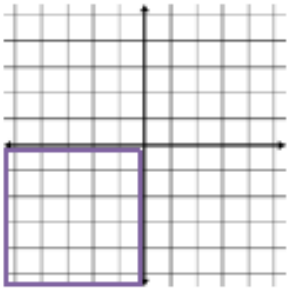
51. Find the area of the shape below.



52. Antonio makes $8.65 an hour at his first job and $12.50 and hour at the second job. He wants to make at least $500 this week between the two jobs.

Write an inequality to represent this situation.

53. Which quadrant is highlighted?

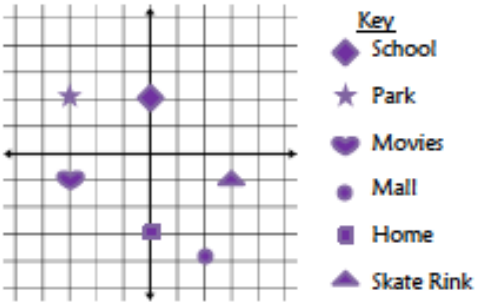


54. Complete the table.

Songs purchased	Total cost
1	
2	$4
3	
4	$8
5	

Write an equation to help you determine how much you would spend if you bought X number of songs.

55. What are the coordinates of the home?



56. Use the graph in #55 to answer : Carl leaves the skate rink and goes 3 units down and 1 unit left. Where does he end up?

57. Use the grid in #55 to answer this question below:

Connect the points between the school, movies and skate rink. What shape is formed? What is the area of the shape?

58. What is the surface area of the shape made from the net below?