

Name \_\_\_\_\_

**Due: Wednesday, September 9th**

**Show all work**

This will be counted as your first **quiz** grade

For # 1 - 2 , Complete with  $<$ ,  $>$  or  $=$

1.  $4$   $| - 8 |$

2.  $| 3 |$   $| - 3 |$

For # 3 - 5 , evaluate each expression

3.  $- 6 + (- 11)$

4.  $2 - (- 9)$

5.  $- 9 \cdot 2$

6. Evaluate the expression when  $x = 5$ ,  $y = -3$ , and  $z = -2$

$$\frac{x - 5z}{y}$$

7. Write  $-\frac{21}{16}$  as a decimal.

8. Write  $-0.122$  as a fraction.

For # 9 - 12, Add, subtract, multiply or divide. Keep fractions in simplest form.

9.  $-\frac{4}{9} + (-\frac{23}{18})$

H.W. Mountz Rising 8th grade Summer Packet 2020  
(completed 7 Accelerated Math)  
The packet should be completed **without** a calculator

10.  $\frac{17}{12} - (-\frac{1}{8})$

11.  $-4.4 \times (-6.02)$

12.  $-1\frac{5}{6} \div 4\frac{1}{6}$

13. How many 2.25-pound containers can you make with 24.75 pounds of almonds?

For # 14 -16, simplify each expression.

14.  $8x - 5 - 2x$

15.  $(2r - 13) - (-6r + 4)$

16.  $-2.5(2s - 5) - 3(4.5s - 5.2)$

17. Factor out the coefficient of the variable

$$3n - 24$$

For # 18 - 20 , solve each equation.

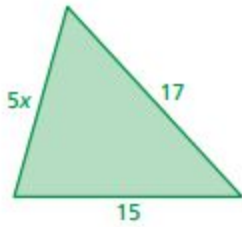
18.  $7x = -3$

19.  $-2(x + 1) = -2$

20.  $\frac{2}{9}g = -8$

21. You lose 0.3 point for stepping out of bounds during a floor routine. Your final score is 9.124. Write and solve an equation to find your score before the penalty.

22. The perimeter of the triangle is 45. Find the value of  $x$ .



For #23 - 26, Solve each inequality and graph its solution.

23.  $x - 4 > 6$

24.  $-6z \geq 36$

25.  $\frac{4}{7} - b \leq -\frac{1}{7}$

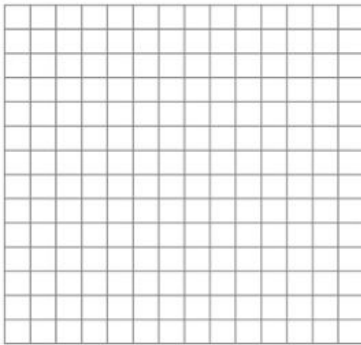
26.  $-0.6 > -0.3(d + 6)$

27. You have \$2.50. Each gumball in a gumball machine costs \$0.25. Write and solve an inequality that represents the number of gumballs you can buy.

28. Find the unit rate: 84 miles in 12 days

29. Solve  $\frac{17}{3} = \frac{y}{6}$

30. Graph the line that passes through (2, 9) and (4, 8) . Then find the slope of the line.



31. Tell whether x and y show direct variation. Explain your reasoning

$$xy - 11 = 5$$

32. What percent of 28 is 21?

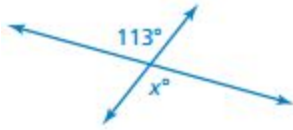
33. 64 is what percent of 40?

34. What number is 80% of 45?

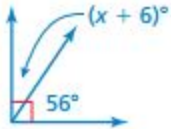
35. If the original price of a shirt is \$15 and it is on sale for 5% off. What is the sale price?

For # 36 - , find the value of x.

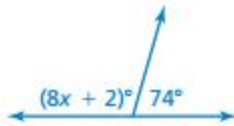
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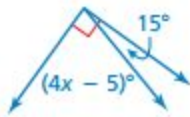
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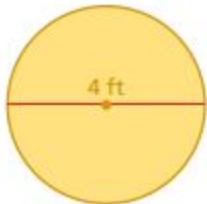
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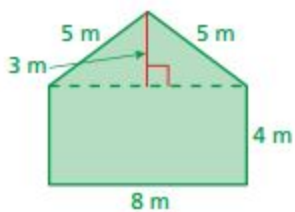
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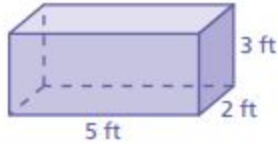
40. Find the circumference and the area of the circle. Leave answers in terms of  $\pi$ .



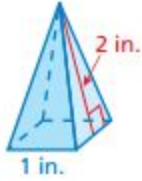
41. Find the perimeter and the area of the figure



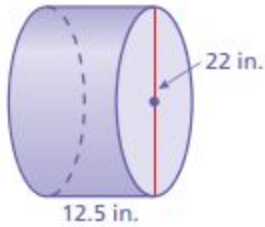
42. Find the surface area.



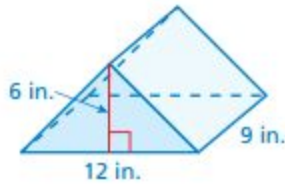
43. Find the surface area



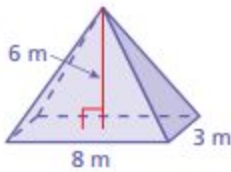
44. Find the surface area. Leave answers in terms of  $\pi$ .



45. Find the volume of the solid.



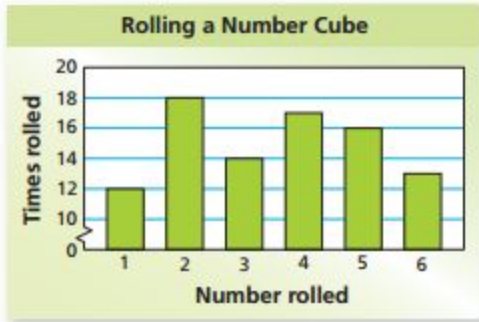
46. Find the volume of the solid.



47. Find the total number of different sunscreens possible

Sunscreen	
SPF	10, 15, 30, 45, 50
Type	Lotion, Spray, Gel

48. Use the bar graph to find the experimental probability of rolling a 1 or a 2.



For # 49 and 50. You randomly choose one chess piece. Without replacing the first piece, you randomly choose a second piece. Find the probability of choosing the first piece, then the second piece.



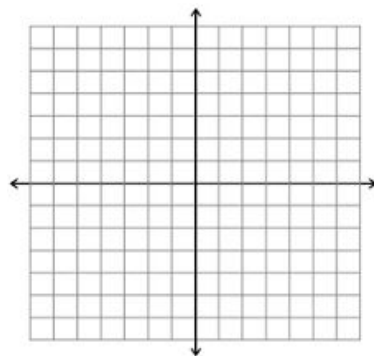
49. Bishop and bishop

50. King and queen

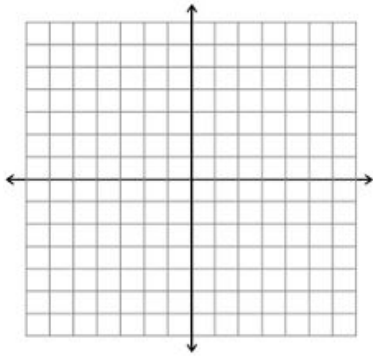
51. Find the slope and the y-intercept

$$y + 4.3 = 0.1x$$

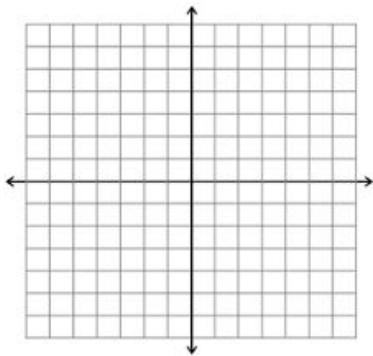
52. Graph  $y = 2x + 4$



53. Graph  $-3x + 6y = 12$



54. Graph  $y = -\frac{1}{2}x - 3$

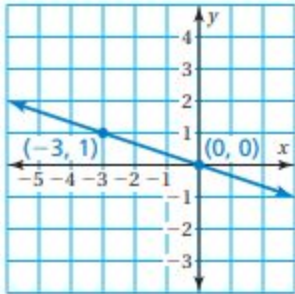


55. The points in the table lie on a line. Find the slope of the line.

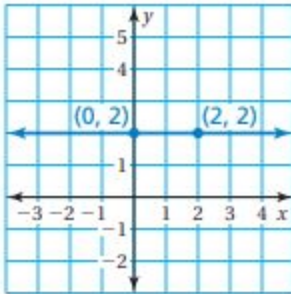
$x$	$y$
-1	-4
0	-1
1	2
2	5



56. Write an equation of the line in slope - intercept form.



57. Write an equation of the line in slope - intercept form.



58. Write in point slope form an equation of a line that passes through the given points.  
 $(-1, 5), (3, -3)$

For 59 and 60,

The number  $y$  of new vocabulary words that you learn after  $x$  weeks is represented by the equation  $y = 15x$

59. How many new vocabulary words do you learn after 5 weeks?

60. How many more vocabulary words do you learn after 6 weeks than after 4 weeks?