

Chapter 1 Review

Name _____

1. The cost of a school banquet is \$70 plus \$11 for each person attending. Determine the equation that models this problem. What is the cost for 97 people?

[A] $y = 70x - 11$; \$6,779

[B] $y = 11x - 70$; \$997

[C] $y = 11x + 70$; \$1,137

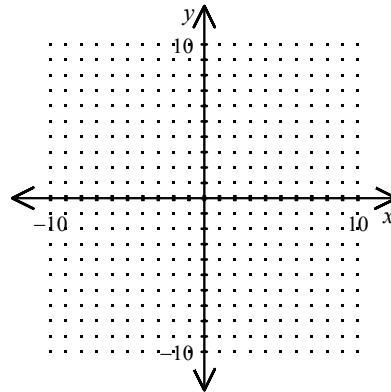
[D] $y = 70x + 11$; \$6,801

[1] _____

2. Find the slope and the y -intercept of the line $8x - 7y = 2$.

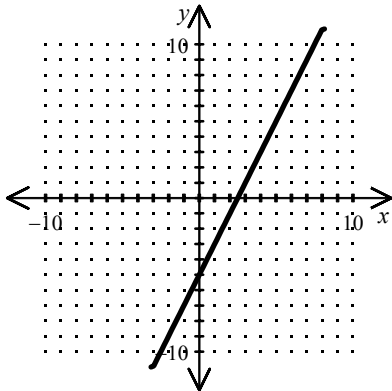
[2] _____

3. Use the slope and y -intercept to graph $y = -5x + 8$.



[3] _____

4. Write an equation that best describes the graph below.



[4] _____

5. Write an equation in slope-intercept form for a line that passes through the given pair of points.

$(2, 9), (-6, 2)$

[5] _____

6. Write the slope-intercept form of an equation of the line that passes through the point $(5, 6)$ and has the slope $m = -6$.

[6] _____

7. Write an equation in slope-intercept form of the line that passes through $(-5, 4)$ and is parallel to the graph of $y = 5x - 5$.

[7] _____

8. Write the equation of the line, in slope-intercept form, that contains the point $(5, -8)$ and is perpendicular to the line $-4x - 8y = -5$.

[8] _____

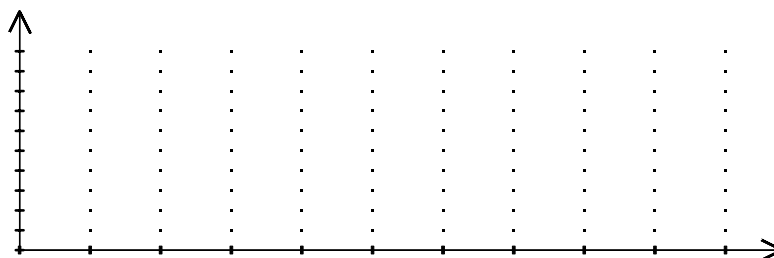
9. Solve the proportion $\frac{x-7}{6} = \frac{2}{11}$. [A] $-\frac{65}{11}$ [B] $\frac{89}{11}$ [C] 89 [D] $\frac{11}{89}$

[9] _____

10. A barber kept track of the number of customers who received haircuts during the day, and the time of day the haircuts were done. The data is displayed below.

haircuts	2	3	5	6	6	6	7	7
time of day	9 a.m.	10 a.m.	11 a.m.	Noon	1 p.m.	2 p.m.	3 p.m.	4 p.m.

Display the data on a scatter plot, and determine whether the correlation of the data can be represented by a linear model. If there is a linear correlation, is there a positive or negative correlation?



[10] _____

Solve for x .

11. $x - 5 = -3$ [A] $x = -2$ [B] $x = -8$ [C] $x = 2$ [D] $x = 8$

[11] _____

Solve for x .

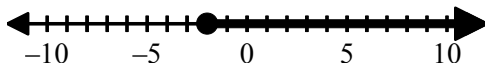
12. $3x - 3 = x - 4$

[12] _____

13. Solve the equation or formula for the variable specified.
 $-5 = t - 4s$, for s

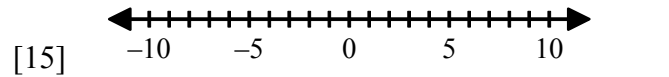
[13] _____

14. What inequality describes the graph?



[14] _____

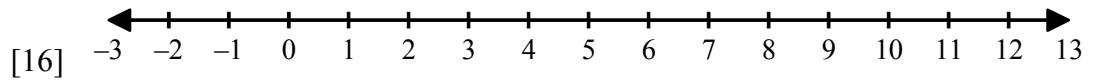
15. Solve the inequality $4x + 1 \leq 2(x + 1)$ and check your solution. Graph the solution on a number line.



[15] _____

Solve the compound inequality. Then graph the solution on a number line.

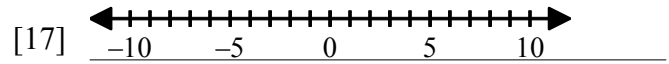
16. $4x + 6 > 10$ and $2x - 4 < 14$



[16] _____

Solve the compound inequality. Then graph the solution on a number line.

17. $x - 1 \leq 0$ or $x > 4$



18. Solve the equation: $|2x - 4| = 6$

[18] _____

[A] $x = 5$ or $x = -1$

[B] $x = -5$ or $x = -1$

[C] $x = 6$ or $x = 3$

[D] $x = -7$ or $x = 3$

19. Solve the inequality: $|x + 3| < 8$

[19] _____

20. Solve the inequality: $|3x + 2| > 7$

[20] _____