

6. **Solve** the formula.
 $B = cx + a$ for c .

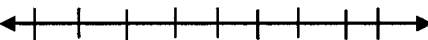
_____ **3 points**

7. To make a profit, a baker's sales of cookies must be greater than her costs to make them. The baker sells cookies at a price of \$2 that cost her \$1.50 to make. She also has basic costs of \$5 on each batch of cookies. How many cookies must she sell in a batch in order to make a profit. **Write an inequality and solve.**

_____ **5 points**

8. a. **Solve** the inequality. Give the solution set in
b. **interval** and c. **graph** forms. (3 points)
 $-5 < 2x + 1 < 4$

- b. _____ **2 points**

- c.  **2 points**

9. For the compound inequality, a. **solve** and give the solution set in
b. **interval form** and c. **graph form**. (3 points)

$$3 + 2x \leq 11 \text{ or } x - 4 \geq 3$$

- b. _____ **2 points**

- c.  **2 points**

10. Let $A = \{0,2\}$ $B = \{1,2,3,4\}$ and $C = \{3,4\}$.
a. Find. $B \cup C$

- a. _____ **2 points**

- b. Find. $A \cap C$

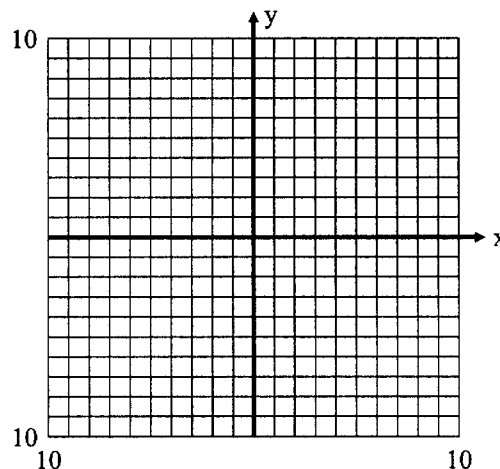
- b. _____ **2 points**

11. a. Complete the table of ordered pairs for the equation $3x - 2y = 9$.

x	y
	0
0	
-3	
	3

4 points

- b. Graph the equation. (4 points)

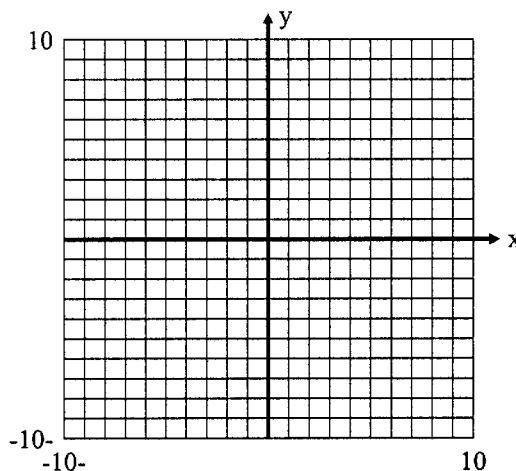


12. If two points are on the same horizontal line, they have the same _____ coordinate.
2 points

13. a. Find the **slope** of the line $2x + 3y = 15$. slope: _____
2 points

- b. Find the **y-intercept**. y-intercept: _____
2 points

- c. **Graph** the equation.
(4 points)



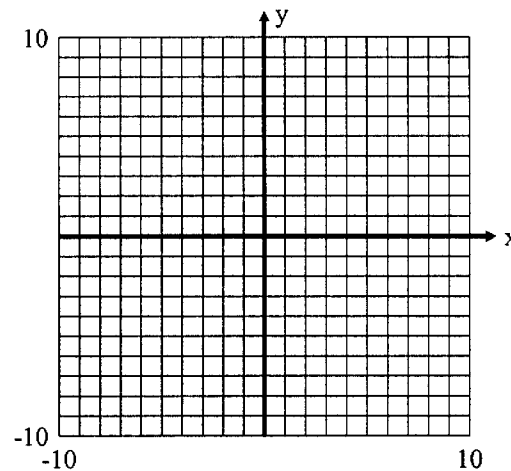
14. Find an equation in **standard form** of the line through the points $(-1, 5)$ and $(2, 2)$.

5 points

15. Write the equation of the line perpendicular to $y = 4$, through $(2, 5)$.

4 points

16. **Graph** the inequality $3x - 4y > -12$.
(5 points)



17. a. **Explain** why or why not that the relation is **a function**. Give **b. the domain** and **c. the range**.

(5 points)

$$R = \{(3,2), (5, 5), (-6, 2), (2, 5)\}$$

a.

b. Domain:

c. Range:

18. For $f(x) = 3 - 4x$, **find :**

a. $f(-2)$

2 points

b. $f(3b)$

2 points

c. $f(x-1)$

2 points

19. **Solve** the system by **substitution or elimination** and write the solution in the **form (x, y)**.

$$2x + 3y = -8$$

$$x - 2y = -4$$

5 points

20. **Select variables to represent the two unknowns, write two equations using the two variables, and solve the resulting system.**

A woman wishes to invest \$8000 in two accounts. One account earns 4% interest and the other earns 7.5% interest. The interest for the first year needs to be \$425. How much should she invest in each account?

5 points