

1. Solve $-3(x - 1) + 8(x - 3) = 6x + 7 - 5x$

2. Simplify.

a. $6 \div [(3 + 10 + 6 - 2 \cdot 9) \cdot 2]$

b. $7 \div (3 - 2) \cdot 2 \div [2 \div (8 - 6)]$

3. Perform the indicated operation and simplify.

a. $(9x^3 - 2x + 1) + (5x^2 + 12x - 4)$

b. $(2x^2 + 3x) - (3x^2 + x - 4)$

c. $(5x - 1)(x + 7)$

d. $(x - 3)(3x^2 - 2x - 4)$

4. Marty is spending money at the average rate of \$3 per day. After 14 days he has \$68 left. Write a linear equation for the situation and determine how much money he had before he started spending money.

Equation: _____

Answer: _____

5. Given the equation, graph and find the following:

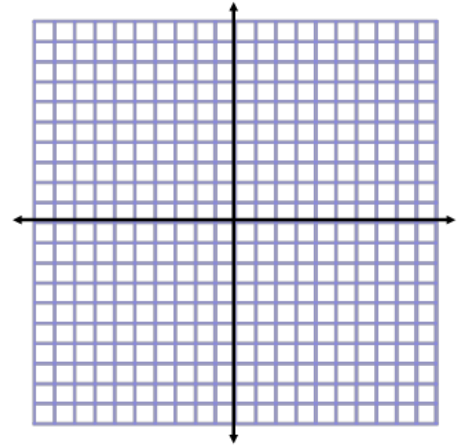
$$y = \frac{1}{2}x - 4$$

x – intercept: _____

y – intercept: _____

m = _____

b = _____



6. Given the equation, graph and find the following:

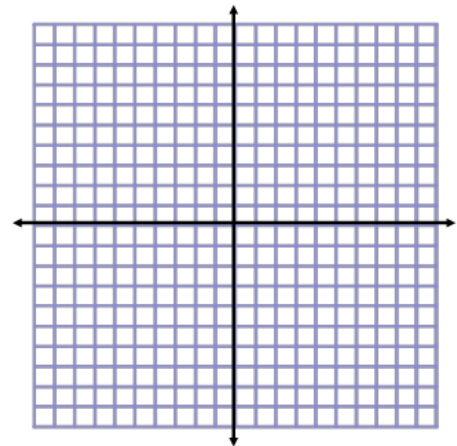
$$5x + 2y = 10$$

x – intercept: _____

y – intercept: _____

m = _____

b = _____



7. Solve the system of equations by substitution.

$$\begin{aligned} -4x + 9y &= 9 \\ x &= 3y - 6 \end{aligned}$$

8. Solve the system of equations by elimination.

$$\begin{aligned} 8x + 14y &= 4 \\ -6x - 7y &= -10 \end{aligned}$$

9. What does the solution to a system of equations represent graphically?