

**Lesson 8: Standard Form of Linear Equations Worksheet**

Name: \_\_\_\_\_  
Date: \_\_\_\_\_ Hour: \_\_\_\_\_

Explain questions with stars next to question numbers.  
Identify if each of the following are linear equations, if they are put them in standard form and if they are not explain why they are not a linear equation.

1)  $3xy + 7 = 15$

No

2)  $4x + 5y = -3$

$$4x + 5y = -3$$

3)  $-5x + 8y = 12$

$$5x - 8y = -12$$

4)  $5x = 6y - 4$

$$5x - 6y = -4$$

5)  $\frac{1}{2}x + 3y = 4$

$$x + 6y = 8$$

6)  $12 - 4x = 8y$

$$4x + 8y = 12$$

★ 7)  $5x^2 + 3 = 8y$

No

8)  $\frac{5}{y} + 6 = 8x$

No

9)  $\frac{x}{4} = -3$

$$x = -12$$

Solve algebraically for the x and y intercepts and write the intercepts as ordered pairs.

10)  $5x + 8y = -40$

$$\left. \begin{array}{l} (-8, 0) \\ (0, -5) \end{array} \right\}$$

★ 11)  $-2x - 3y = 30$

$$\left. \begin{array}{l} (-15, 0) \\ (0, -10) \end{array} \right\}$$

12)  $3x + 4y = 0$

$$\left. \begin{array}{l} (0, 0) \\ (0, 0) \end{array} \right\}$$

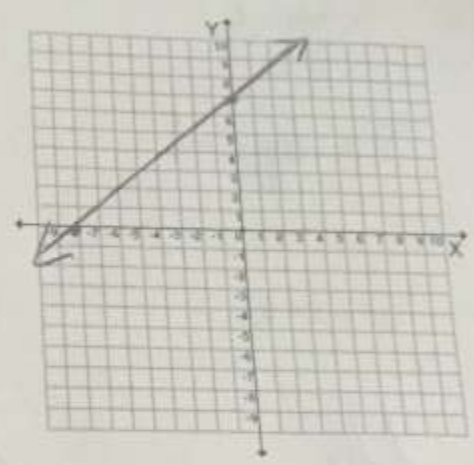
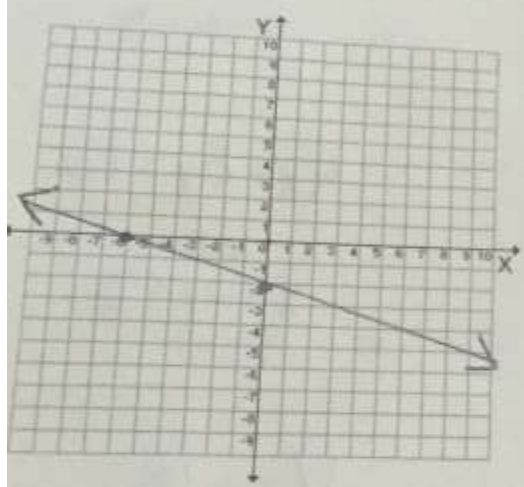
Solve algebraically for the x and y intercepts and then use them to graph a line on the graph.

13)  $x + 3y = -6$

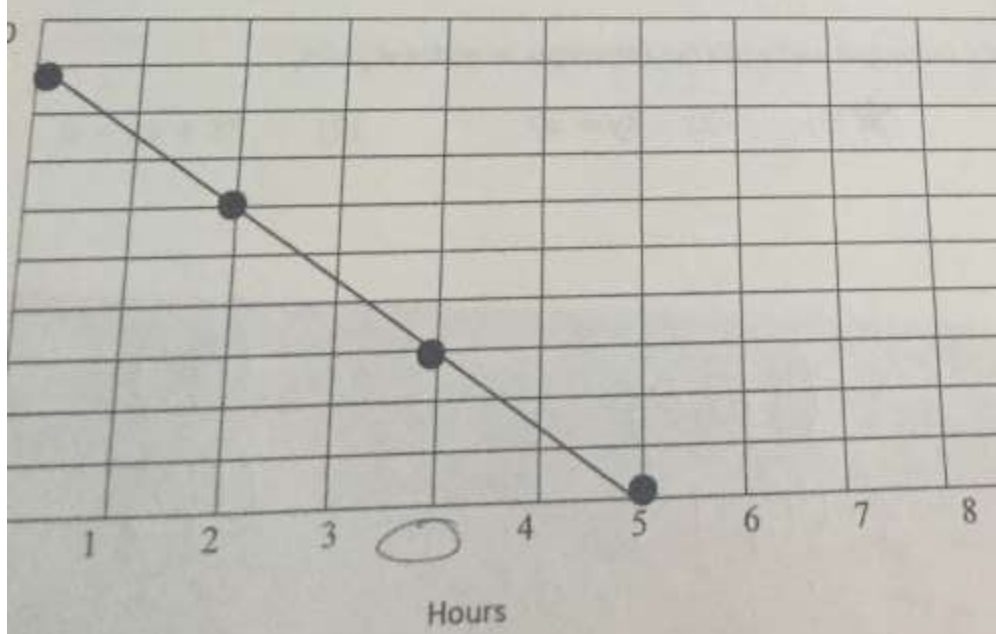
14)  $-7x + 8y = 56$

$(-6, 0)$   
 $(0, -2)$

$(-8, 0)$   
 $(0, 7)$



Mr. Osaer threw a party for all of his students. The 9 lbs that were left when they were finished were left outside to melt. The ice cream melts at a rate of 1.5 gallons per hour.



Identify the intercepts and what they mean.

x-int  $(5, 0)$

y-int  $(0, 9)$