

Warm Up:

Carly is buying snack food for her class from the bulk food section. She can purchase chocolate covered raisins for \$2.50 per pound. She can purchase jelly beans for \$1.50 per pound. Carly only has \$15 to spend. Let x represent the number of pounds of raisins and y represent the number of pounds of jelly beans.

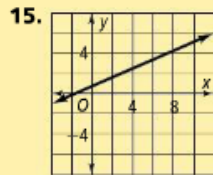
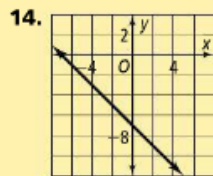
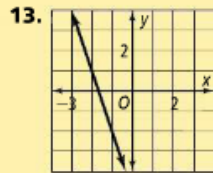
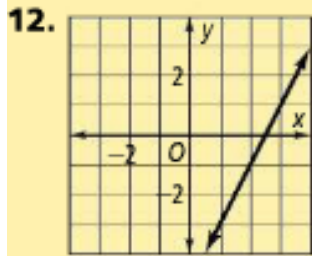
- a. Write an equation: _____
- b. Find the x-intercept: _____ y-intercept: _____
- c. What does the x-intercept mean?
- d. What does the y-intercept mean?

8. $y + 4 = 6(x - 3)$

9. $y - 2 = -\frac{5}{3}(x - 4)$

10. $y + 7 = \frac{4}{5}(x + 2)$

11. $y = -1(x - 4)$



16-18. Answers may vary. Samples are given.

16. $y - 3 = \frac{4}{3}(x - 1)$

17. $y - 1 = -\frac{3}{4}(x - 1)$

18. $y - 2 = \frac{3}{4}(x - 1)$

19-21. Point-slope forms may vary. Samples are given.

19. $y - 4 = \frac{3}{2}(x - 1)$; $y = \frac{3}{2}x + \frac{5}{2}$

20. $y - 4 = 2(x - 2)$; $y = 2x$

$$\frac{4 - (-6)}{2 - (-3)} = \frac{10}{5}$$

Find the equation of a line in **slope intercept form** with a slope of $\frac{3}{4}$ and passes through the point $(8,9)$.

$$y - 9 = \frac{3}{4}(x - 8)$$

$$y - 9 = \frac{3}{4}x - 6$$

$$\begin{array}{r} +9 \\ +9 \end{array}$$

$$y = \frac{3}{4}x + 3$$

$$y = mx + b$$

$$9 = \frac{3}{4}(8) + b$$

$$9 = 6 + b$$

$$\begin{array}{r} -6 \\ -6 \end{array}$$

$$3 = b$$

$$y = \frac{3}{4}x + 3$$

Find the equation of the line in **slope intercept form** with slope of -5 and passes through the point (-2,4).

$$y = mx + b$$

$$4 = -5(-2) + b$$

$$4 = 10 + b$$

$$-6 = b$$

$$y = -5x - 6$$

Find the equation of a line in **slope intercept form** that passes through the points $(1,3)$ and $(4,5)$.

$$\frac{5-3}{4-1} = \frac{2}{3}$$

$$\frac{y_2 - y_1}{x_2 - x_1}$$

$$3 = \left(\frac{2}{3}\right)(1) + b$$

$$3 = \frac{2}{3} + b$$

$$\frac{2}{3} + \frac{2}{3} = b$$

$$y = \frac{2}{3}x + \frac{7}{3}$$

A seed was planted in a small flower pot. After 6 days, the plant was 3cm tall. After 12 days, the plant was 6 cm. (Assume the plant grows at a constant rate.)

$$(6, 3) \quad (12, 6)$$

- a. Write an equation (in slope intercept form) that represents the growth of the plant where x is the number of days and y is the height.

$$3 = \frac{1}{2}(6) + b$$

$$b = 0$$

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

- b. How tall will the plant be after 50 days?

Task Cards 1-20

Finish for homework