

NAME _____

DATE _____

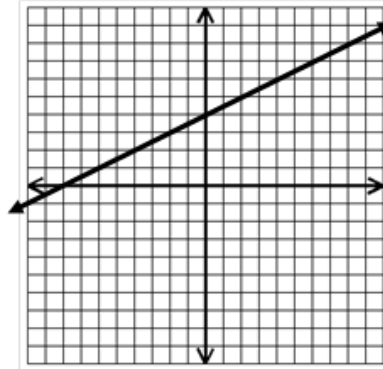
PER. _____

Interpreting Changes in Slope and Intercepts – Day 3

The graph shown contains the points $(-4, 2)$ and $(4, 6)$. Use this graph for problems 1 – 5.

Original Equation:

$$y = \underline{\quad}x + \underline{\quad}$$

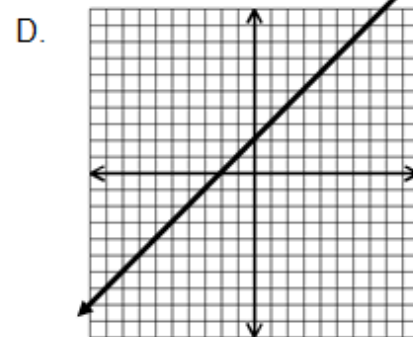
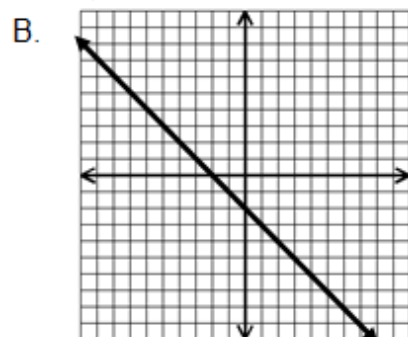
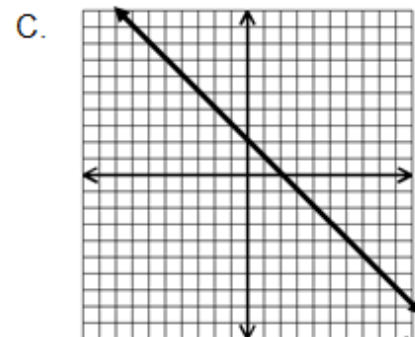
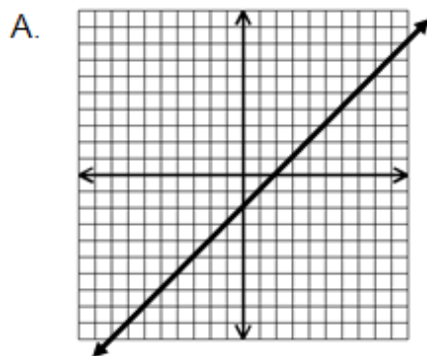


1. If the slope of the line is multiplied by -4 and the y -intercept decreases by 6 units, what would be the linear equation that represents these changes?

_____ 2. Which best describes the effect on the x -intercept of the graph of function if the y -intercept changes to -3 ?

- A. The x -intercept remains the same, and the new line is translated upward.
- B. The x -intercept becomes positive, and the new line is parallel to the original line.
- C. The x -intercept remains the same, and the new line is translated downward.
- D. The x -intercept becomes negative, and the new line intersects the original line.

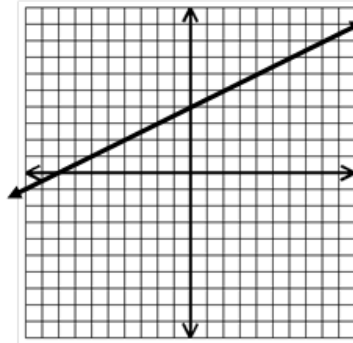
_____ 3. Which graph best represents this line if the slope is doubled and the y -intercept is halved?



The graph shown contains the points $(-4, 2)$ and $(4, 6)$. Use this graph for problems 1 – 5.

Original Equation:

$y = \underline{\quad}x + \underline{\quad}$



4. If the slope is divided by $-\frac{3}{4}$ and the y-intercept decreases by 8, answer the following:

The equation of the new line is _____.

True or False? _____ The new line is translated downward.

_____ The new line is perpendicular to the original line.

_____ The original line is steeper.

_____ The x-intercept increases.

_____ 5. If the slope of the original graph becomes steeper and the y-intercept decreases, which of the following could be the equation of the new line?

A. $y = x + 7$

C. $y = -\frac{1}{2}x - 7$

B. $-4x + 8y = 32$

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

6. The graph shows the relationship between the number of cookies a presenter at a convention had left to give away and the number of presentations she had made.

a) What is the y-intercept? What does it represent?

b) What is the x-intercept? What does it represent?

c) How many cookies did the presenter give away at each presentation?

