

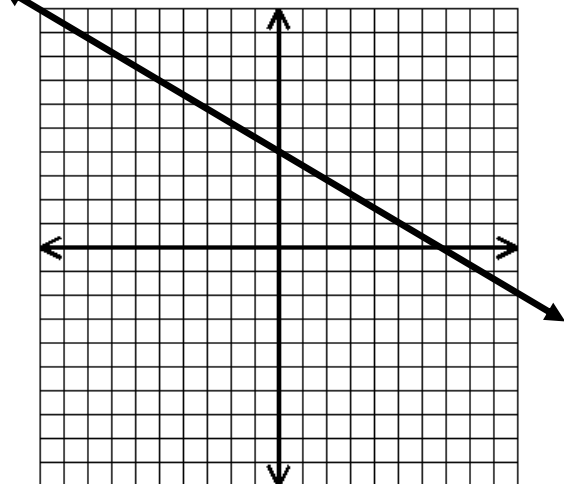
WRITING EQUATIONS OF LINES

Example 1: Given the linear equation $4x - 6y = 12$, answer the following.

1. Circle one: The original equation is in slope-intercept form / standard form.
2. Does the graph of this line cross the y-axis above or below the x-axis? _____
3. What is the constant rate of change? _____
4. What is the y-intercept? _____
5. As the x-value increases by _____, the y-value increases or decreases by _____.
6. Does this equation represent a direct variation? Explain.
7. Write the equation of a line parallel to the given equation and passes through (3, 8).
8. Write the equation of a line perpendicular to the given equation and passes through (6, -13).

Write the equation of each line described, in slope-intercept form.

2.



Equation: _____

3. Slope of $-\frac{1}{2}$ and passes through $(-4, 1)$

Equation: _____

4. Vertical line through $(-2, 8)$

Equation: _____

5. y-intercept of -2 and x-intercept of 6

Equation: _____

6. The distance required to stop a car varies directly to its speed. In one experiment, a car traveling 60 miles per hour required 250 feet to stop.

a) Write an equation that can be used to find y , the distance required to stop the car when it is traveling x miles per hour.

b) How many feet are required to stop the car when it is traveling 25 mph?