

Algebra I

Notes Section 4.3

Write Linear Equations in Point-Slope Form

Big Ideas

1. How to write an equation of a line in standard form if given the slope of the line and a point the line goes through.
2. How to write an equation of a horizontal line & vertical line through a given point.
3. How to find the missing coefficient of an equation in standard form through a given point.

VOCABULARY

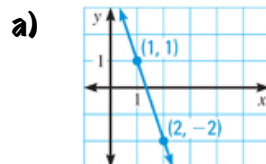
Standard Form: _____

EXAMPLE 1 Write two equations in standard form that are equivalent to the following equations.

a) $2x - 6y = 4$

b) $x - y = 3$

EXAMPLE 2 Write an equation in standard form of the line shown.

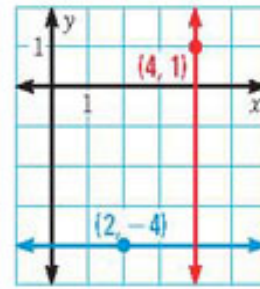


b) through $(3, -1)$ and $(2, -3)$

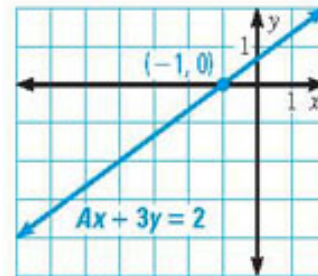
EXAMPLE 3 Write an equation of each line shown.

a) Blue line

b) Red line



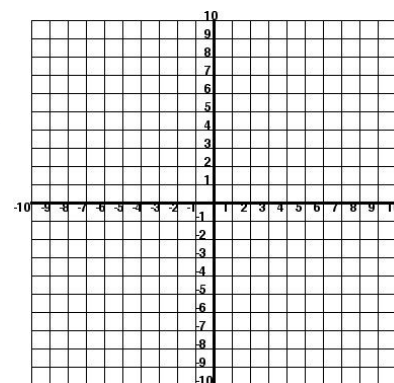
EXAMPLE 4 Find the missing coefficient in the equation.
Write the completed equation.



EXAMPLE 5 Your class is taking a trip to the public library. You can travel in small and large vans. A small van holds 8 people and a large van holds 12 people. Your class could fill 15 small vans and 2 large vans.

a) Write an equation in standard form.

b) Find the x and y-intercepts and then graph.



c) List several combinations of small and large vans.
