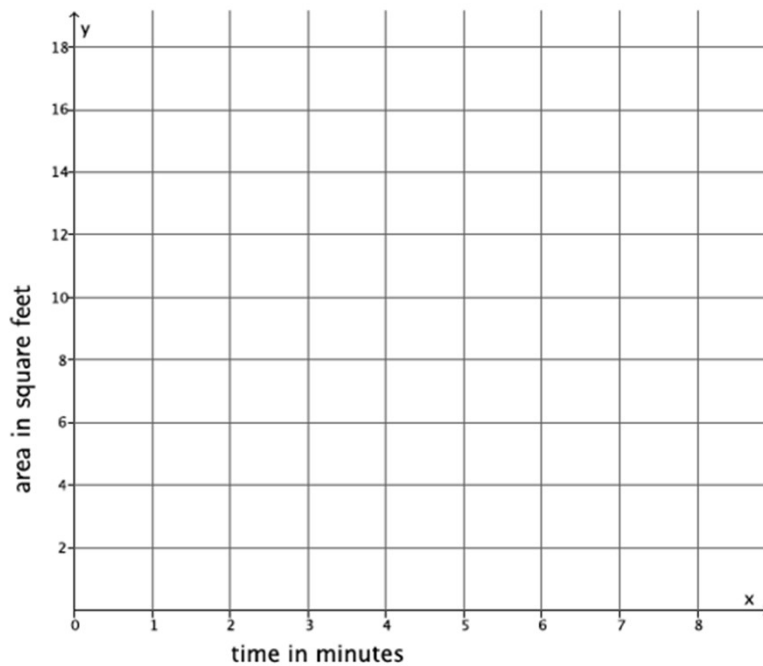


## Constant Rate and Linear Equation

1. Peter paints a wall at a constant rate of 2 square feet per minute. Assume he paints an area  $y$ , in square feet, after  $x$  minutes.

a) Express this situation as a linear equation in two variables.

b) Sketch the graph of the linear equation.



b) Using the graph or the equation, determine the total area he paints after 8 minutes,  $1\frac{1}{2}$  hours, and 2 hours. Note that the units are in minutes and hours.

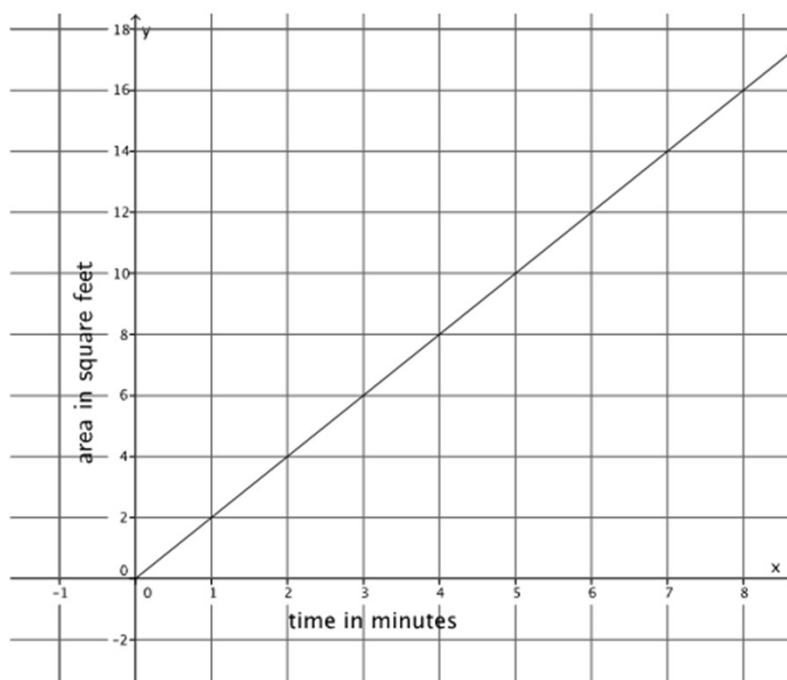
## Constant Rate and Linear Equation

1. Peter paints a wall at a constant rate of 2 square feet per minute. Assume he paints an area  $y$ , in square feet, after  $x$  minutes.

a) Express this situation as a linear equation in two variables.

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

b) Sketch the graph of the linear equation.



b) Using the graph or the equation, determine the total area he paints after 8 minutes,  $1\frac{1}{2}$  hours, and 2 hours. Note that the units are in minutes and hours.

In 8 minutes, he paints 16 square feet.

$$y = 2(90) = 180$$

In  $1\frac{1}{2}$  hours, he paints 180 square feet.

$$y = 2(120) = 240$$

In 2 hours, he paints 240 square feet.

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