Algebra 1 3.4

Solve and graph direct variation equations

Use direct variation in context

direct variation $y = k \cdot x$

slope: COV $\frac{1}{2}$

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

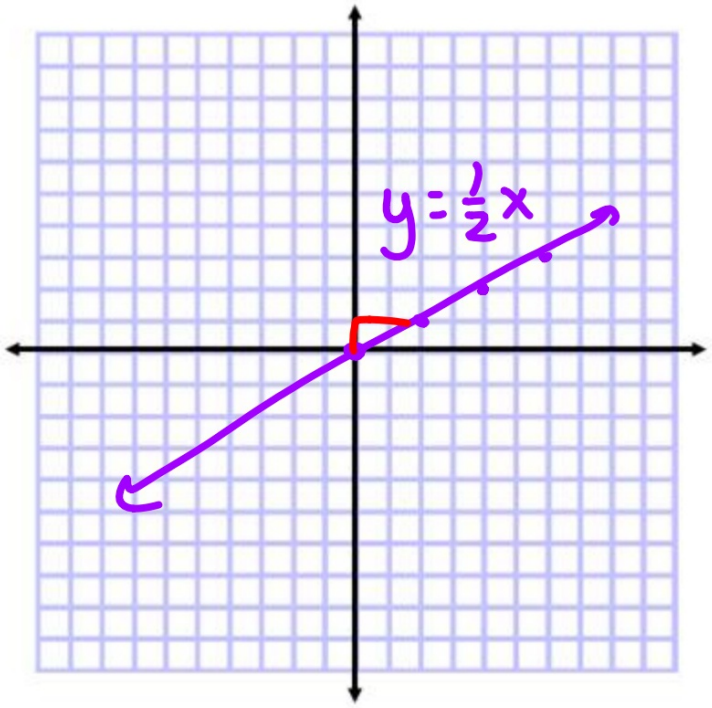
whiteboards

matching activ

Whiteboards Gra

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

rise 1
run 2



ICE ws

y varies directly as x.

$y = kx$

$8 = k2$

$y = 8$ when $x = 2$ $(2, 8)$

$\frac{8}{2} = \frac{k \cdot 2}{2}$

$k = 4$

$y = 4x$

What is x when $y = 18$ $x = 4.5$

$18 = 4x$

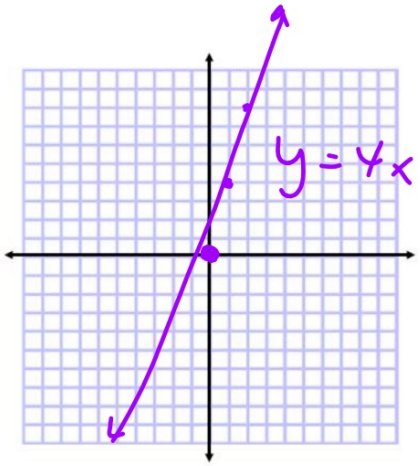
$\frac{18}{4} = \frac{4x}{4}$

What is y when $x = 5$

$y = 20$

$y = 4 \cdot 5$

$y = \frac{4}{1} x$



Cost is directly proportional to number of pounds

$C = k \cdot p$

3 pounds → $7.50

$\frac{7.50}{3} = \frac{k \cdot 3}{3}$

$k = 2.5$

$C = 2.5p$