Inverse proportion: y = k/x *lesson handout*

Name _____

We do

y is inversely proportional to x.
When $x = 5$, $y = 6$. Write a formula for y in terms of x.

$y \propto \frac{1}{x}$ $\quad y = \frac{k}{x}$

$\square = \frac{k}{\square}$

$k = \square \times \square = \square$

$y = \frac{\square}{x}$

You do

y is inversely proportional to x.
When $x = 2$, $y = 9$. Write a formula for y in terms of x.

$y \propto \frac{1}{\square}$ $\quad y = \frac{k}{\square}$

$\square = \frac{k}{\square}$

$k = \square \times \square = \square$

$y = \frac{\square}{x}$

You do

T is inversely proportional to n.
When $n = 4$, $T = 7$. Write a formula for T in terms of n.

$T \propto \frac{1}{\square}$ $\quad T = \frac{k}{\square}$

$\square = \frac{k}{\square}$

$k = \square \times \square = \square$

$T = \frac{\square}{n}$

We do

y is inversely proportional to x.
When $x = 4$, $y = 10$. Find y when $x = 5$.

$y \propto \frac{1}{x}$ $\quad y = \frac{k}{x}$

$\square = \frac{k}{\square}$

$k = \square \times \square = \square$

$y = \frac{\square}{x}$

$y = \frac{\square}{\square} = \square$

You do

y is inversely proportional to x.
When $x = 3$, $y = 16$. Find y when $x = 12$.

$y \propto \frac{1}{\square}$ $\quad y = \frac{k}{\square}$

$\square = \frac{k}{\square}$

$k = \square \times \square = \square$

$y = \frac{\square}{x}$

$y = \frac{\square}{\square} = \square$

You do

y is inversely proportional to x.
When $x = 6$, $y = 5$. Find y when $x = 2$.

$y \propto \frac{1}{\square}$ $\quad y = \frac{k}{\square}$

$\square = \frac{k}{\square}$

$k = \square \times \square = \square$

$y = \frac{\square}{x}$

$y = \frac{\square}{\square} = \square$

We do

y is inversely proportional to x.
When $x = 2$, $y = 15$. Find x when $y = 5$.

$y \propto \frac{1}{x}$ $\quad y = \frac{k}{x}$

$\square = \frac{k}{\square}$

$k = \square \times \square = \square$

$y = \frac{\square}{x}$

$\square = \frac{\square}{x}$

$x = \frac{\square}{\square} = \square$

You do

y is inversely proportional to x.
When $x = 5$, $y = 9$. Find x when $y = 3$.

$y \propto \frac{1}{\square}$ $\quad y = \frac{k}{\square}$

$\square = \frac{k}{\square}$

$k = \square \times \square = \square$

$y = \frac{\square}{x}$

$\square = \frac{\square}{x}$

$x = \frac{\square}{\square} = \square$

You do

t is inversely proportional to n.
When $n = 8$, $t = 6$. Find n when $t = 12$.

$t \propto \frac{1}{\square}$ $\quad t = \frac{k}{\square}$

$\square = \frac{k}{\square}$

$k = \square \times \square = \square$

$t = \frac{\square}{n}$

$\square = \frac{\square}{n}$

$n = \frac{\square}{\square} = \square$