

Functions in the form...

$$x \cdot y = k \text{ or } y = \frac{k}{x} \text{ where } k \neq 0$$

represents an inverse variation between x and y

k is the constant of variation between x and y

" x and y vary inversely with each other"

$$x \cdot y = 3$$

$$x \cdot y = -8$$

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

$$y = \frac{4}{x} + 5$$

Let x and y vary inversely. Given an (x,y) point, create the equation of inverse variation.

(6,12)

(12,6)

(-1,4)

(2,-3)

Let x and y vary inversely. If $x = 8$ when $y = 2$, find y when $x = 4$ and when $x = 2$.

Let x and y vary inversely. If $x = 3$ when $y = 4$, find x when $y = -2$ and when $y = 8$.

One's *rate of travel* and the *time of travel* vary inversely. If it takes 14 hours at a rate of 60 mph to get to Atlanta, how long will it take to get home from Atlanta traveling at a rate of 75 mph?