Direct and Inverse Variation

Name _____

Date _____ Period _____

Variation

Direct Variation

Inverse Variation

Variation

how variables are related to one another.

Direct Variation

Inverse Variation

Tell whether x and y vary *directly*, *inversely*, or *neither*.
Then determine the constant of variation.

$y = 3x$

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

$xy = 2$

$6 = \frac{y}{x}$

$y = 2x + 3$

$$y = kx$$

k is called the constant of variation

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

The variables x and y vary *directly* with one another.
if $y = 12$ when $x = 6$, find y when $x = 4$ and when $x = -6$.

The variables x and y vary *inversely* with one another.
if $y = 3$ when $x = 6$, find y when $x = 9$ and when $x = 36$.