Direct Variation   Inverse Variation

Function in the form...

$y = k{\cdot}x$, where $k \neq 0$ $x{\cdot}y = k$ or $y = \dfrac{k}{x}$ where $k \neq 0$

Direct variation between x and y Inverse variation between x and y

"y varies directly with x"   "y varies inversely with x"

"y is directly proportional to x"   "y is inversely proportional to x"

The ratio $\dfrac{y}{x}$ is constant   The product $x{\cdot}y$ is constant

Determine the relationship between the following values

x = rate of travel x = hours worked
y = time of travel y = check amount
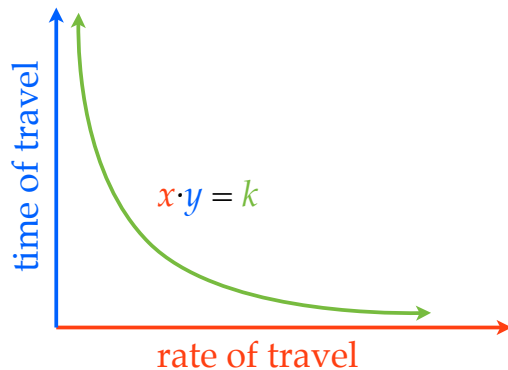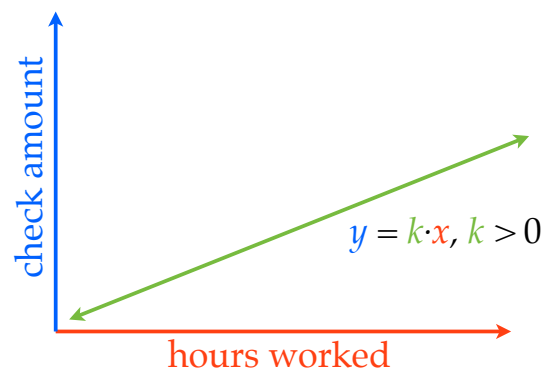
$x{\cdot}y = k$ $y = k{\cdot}x,\ k > 0$

time of travel / rate of travel   check amount / hours worked

Determine the relationship between the following values

Direct Variation

The ratio $\frac{y}{x}$ is constant

Inverse Variation

The product $x \cdot y$ is constant

x	y
1	3
3	9
4	12
5	15

Determine the relationship between the following values

Direct Variation

The ratio $\frac{y}{x}$ is constant

Inverse Variation

The product $x \cdot y$ is constant

x	y
1	50
5	10
2	25
10	5

Determine the relationship between the following values

	Direct Variation				Inverse Variation
	The ratio $\frac{y}{x}$ is constant	x	y		The product $x{\cdot}y$ is constant
		16	8		
		8	4		
		10	5		
		2	1		

Determine the relationship between the following values

	Direct Variation				Inverse Variation
	The ratio $\frac{y}{x}$ is constant	x	y		The product $x{\cdot}y$ is constant
		3	12		
		1	6		
		5	10		
		2	8		