

Inversely proportional instructions

definition:

Inversely Proportional means:

when one value increases at the same rate that the other decreases $\uparrow \downarrow$

or when one value decreases at the same rate that the other increases $\downarrow \uparrow$

example:

speed and drive time:

As speed goes down, drive time goes up.

As speed goes up, drive time goes down.

calculate:

A car is going at at speed **54 mph**. It takes **20 minutes** to the city.

How long does it take the same car if it is going at a speed of **60 mph**?

1. step: proportion

* **54 mph** - **20 minutes**

: **60 mph** - **x minutes**

2. step: which proportion?

\uparrow more speed \downarrow less minutes = **inverse proportion**

3. step: formula

$$x = \frac{20 * 54}{60}$$

$$x = 18 \text{ minutes}$$

4. step: answer

It takes the car 18 minutes to the city.