

QUESTION:

A rocket is traveling at 10km/s. how long does it take rocket to travel 30km? Give me answer in full details!

SOLUTION:

The speed **v** of the rocket is the distance **d** traveled by the rocket divided by the duration of the interval **t**:

$$v = \frac{d}{t}$$

Hence, the rocket takes

$$t = \frac{d}{v} = \frac{30 \text{ km}}{10 \text{ km/s}} = 3 \text{ s}$$

to travel 30 km.

ANSWER:

3 seconds