

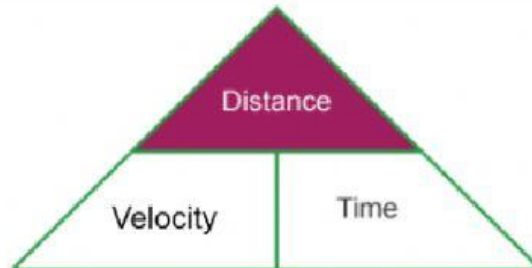
**Velocity (v):** the speed of an object AND the direction of its motion.

- Speed can remain constant and velocity changes if the object is changing directions.
- Calculated the same as speed, just must include direction in your answer!!

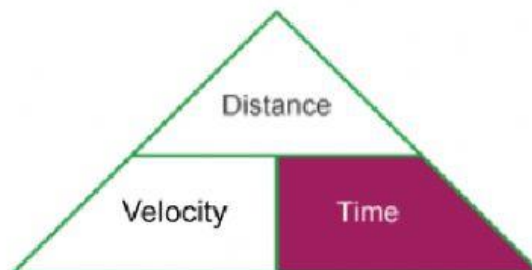
### How to Calculate

#### Velocity:

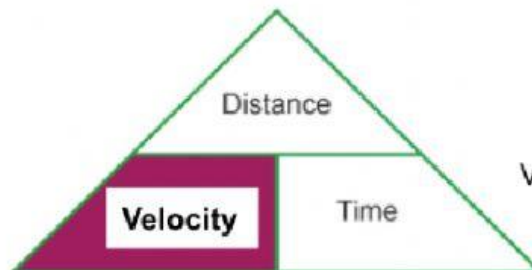
Velocity =  
distance divided  
by time



$$\text{Distance} = \text{Velocity} \times \text{Time}$$



$$\text{Time} = \frac{\text{Distance}}{\text{Velocity}}$$



$$\text{Velocity} = \frac{\text{Distance}}{\text{Time}}$$

**You Try:**

1. An elevator at a museum can travel 210 m upwards in 35 s. What is the elevator's **velocity**?

$$V = d / t$$

$$v = 210 \text{ m upwards} / 35\text{s}$$

$$v = 6 \text{ m/s upwards}$$