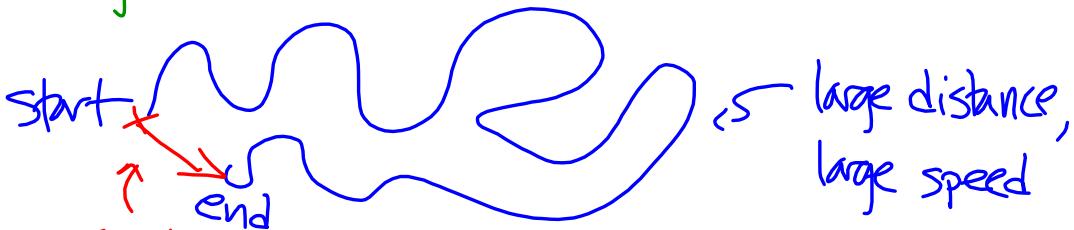
Velocity:

How quickly an object's displacement changes over time.



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

displacement = Δx

displacement units:

$$\frac{\text{unit of distance}}{\text{unit of time}}$$ + DIRECTION

If you know...	You can find...	Using:	Units of answer:
displacement (m) time (s)	velocity	$v = \frac{d}{t}$	$\frac{m}{s}$ + DIRECTION
velocity $(\frac{m}{s})$ time (s)	displacement	$d = v \cdot t$	m + DIRECTION
velocity $(\frac{m}{s})$ displacement (m)	time	$t = \frac{d}{v}$	s

The Five Steps:

I.Y.K.

1. List the variables given in the problem
2. Write the variable you're trying to find
3. Write the equation you'll use
4. Substitute and solve
5. Write the answer – with correct units and direction (if needed)

1. A moose goes 11 meters in 63 seconds. What is his velocity?

1. ① $d = 11\ m$, $t = 63\ s$

② v

③ $v = \frac{d}{t}$

④ $v = \frac{11}{63} = 0.17$

⑤ $v = 0.17 \frac{m}{s}$ North