

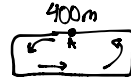
Scalar | Vector → Frame of Reference

Distance
Speed
?

Displacement
Velocity
Acceleration

→ change in position

m
m/s
m/s²



Magnitude, unit

5 km, 6.2 m, 7.67 m/s

Magnitude, unit, direction

5 km, 30° change of reference

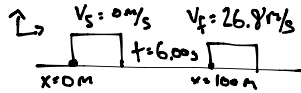
Speed is change of distance w/ time

400 m
in 100 s

Velocity is change of displacement w/ time

$$\text{Avg speed} = \frac{400 \text{ m}}{100 \text{ s}} = 4 \text{ m/s}$$

$$\text{Avg Vel} = \frac{0 \text{ m}}{100 \text{ s}} = 0 \text{ m/s}$$



Acceleration is the change in velocity

$$\text{Avg Accel} = \frac{\Delta V}{\Delta t} = \frac{V_f - V_i}{t} = \frac{26.8 - 0}{6} = 4.47 \text{ m/s}^2$$

HW: pg 49 #1-23 odd

Quiz - ch. 2 concepts