

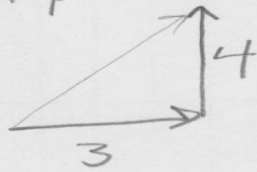
Frames of Reference

- your motion is relative
(compared to something)
- we use the earth as our F.O.R.

Distance vs
length traveled
total (direction
doesn't matter)

Displacement
Includes direction
Beginning spot compared
to ending spot

pg 331 picture



$$\begin{aligned} \text{Distance} &= 7 \text{ Blocks} \\ \text{Displacement} &= a^2 + b^2 = c^2 \\ 3^2 + 4^2 &= c^2 \\ \sqrt{25} &= \sqrt{c^2} \\ c &= 5 \text{ Blocks} \end{aligned}$$

Speed vs
 $\text{Speed} = \frac{\text{distance}}{\text{time}}$

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

Velocity
 $\text{Velocity} = \frac{\text{distance}}{\text{time}}$
+ direction

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