

Activity—Speed vs Velocity

Task: walk across the classroom and halfway back. Make measurements and collect data that lets you fill in the following information.

- Length of Room _____
- Time travelled _____
- Distance walked _____
- Displacement _____
- Speed _____
- Velocity _____

Distinguish between speed and velocity.

Speed is a measure of total distance travelled over time regardless of direction.

Velocity is a measure of your change in position or location over time. Direction is necessary.

Activity

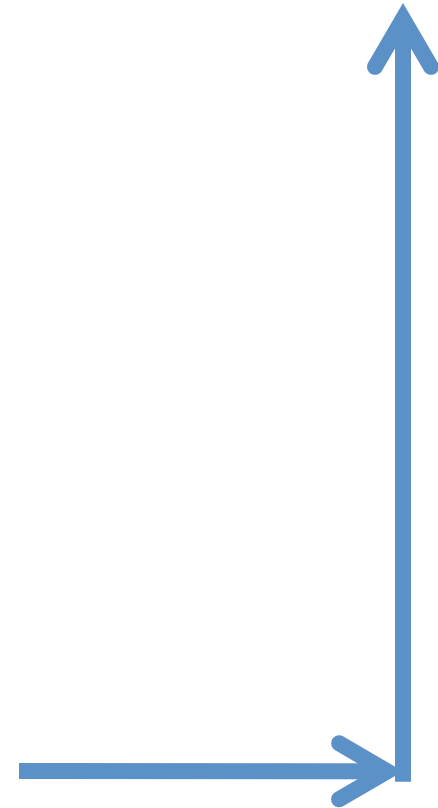
$$A^2 + B^2 = C^2$$

If you walk 5 blocks east in 2 minutes and then 10 blocks north in 5 minutes calculate the following.

MATERIALS: Ruler, Graph Paper and a Calculator

Show all Work and Problem setups or credit will not be given.

- A) Draw the situation to scale on graph paper (use the space)
- B) Your speed as you walked east?
- C) Your speed as you walked north?
- D) Your average speed for the whole trip?
- E) Your average velocity for the whole trip?
- F) Is the average speed and velocity the same? Why?



Use 1cm block paper