Unit 1: Kinematics in 1D  
Speed and Velocity

* Speed (v):
  + Speed is a
* Velocity (v):
  + Velocity is a

Remember that Δ means

Ex: A student travels 11 m north and then turns around and travels 25 m south. If the total time of travel is 12 s, find:

1. The student’s average speed.
2. The student’s average velocity.

1) How long does it take a car traveling at 45km/h to travel 100.0 m?

2) How far does a skateboarder travel in 22 s if his average velocity is 12.0 m/s?

3) A shopping cart moves from a point 3.0 m West of a flagpole to a point 18.0 m East of the flagpole in 2.5 s.   
Find its average velocity.

Average Velocity vs Average Speed

Procedure: Calculations:

**Student 1 - Runner**

Speed:

Velocity:

Data:

**Student 1** **Students 2** **Student 2** - **Walker**

Time: Time: Speed:

Distance: Distance:

Displacement: Displacement: Velocity: