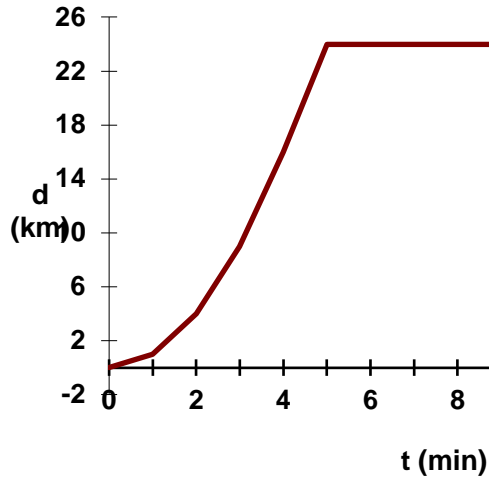# Interpreting Graphs

Distance vs Time

- Each point on the graph shows the object's location.
- Since v= d/t, slope of this graph is the velocity
- Average velocity is the slope between the two points being averaged
- Instantaneous speed of a point is the slope of that section on line
- A flat line is at rest
- Sloping upwards is a positive velocity (going forward)
- Sloping down is a negative velocity (going in reverse)
- An up-curving line is increasing its velocity (accelerating)
- A down-curving line is decreasing its velocity (accelerating)
- Total distance traveled is the sum of all the ups and downs
- Total displacement is adding all the (+) and (-) ups and downs.

Speed vs Time
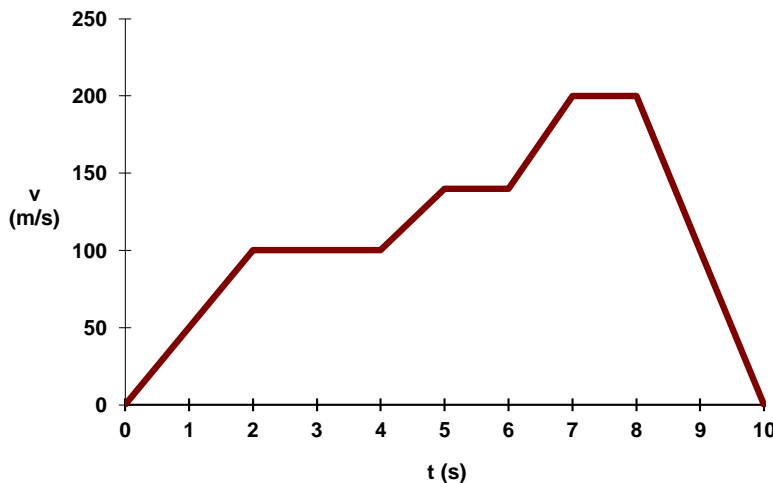
- Flat lines represent a constant, steady speed
- Lines sloping up are positive acceleration- going faster
- Lines sloping down are decelerating (slowing down)
- The slope of these lines are the acceleration.
- Distance traveled is the area under the graph or section of the curve.

Acceleration vs Time
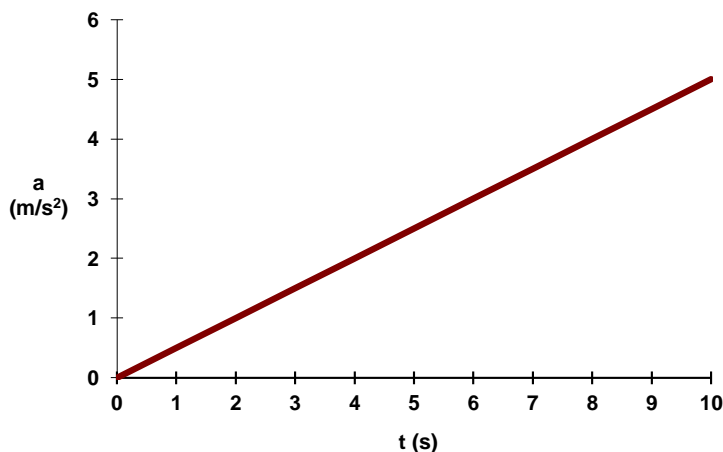
- Acceleration is a measure of how hard you press on the gas pedal
- Velocity is the area under the graph
- This graph shows that you are pressing the pedal harder and harder.