

### Acceleration Notes

Look at the graph below, how is an acceleration graph different from a distance graph?

*horizontal graph?*  
 $D-T = 0$  speed  
 $V-T = \text{constant}$  speed  
Unit: a distance B a time squared  $m/s^2, mi/hr^2$

**Acceleration:** change in velocity over time  
**Positive Acceleration:** acceleration (force) in the SAME direction of motion  
Ex) "speeding up": peddling harder on a bike causing it to speed up  
**Zero Acceleration:** constant velocity  
Ex) "constant velocity": driving on cruise control  
**Negative Acceleration:** acceleration (force) in the OPPOSITE direction of motion  
Ex) "slowing down": pushing on the breaks of a bike

Determine whether each graph is depicting acceleration, deceleration, or no acceleration.

Acceleration Negative Acceleration Acceleration Zero Acceleration

→ "Turning" - a force is applied at an angle