MOTION GRAPHS

Draw and label a graph the represents an object’s speed:

1. *NO MOTION: If an object is not moving, a horizontal line is shown on a distance-time graph.*



Time is increasing to the right, but its distance does not change; therefore, It is not moving. **We say it is at rest.**

1. *CONSTANT SPEED:*



Time and distance increase as an object speeds up.

1. *DECREASING SPEED:*

Time increases, but distance decreases as an object slows down.



Draw and label a graph the represents an object’s acceleration:

1. *ZERO ACCELERATION:*

A straight horizontal line on an acceleration graph means that speed is constant. It is not changing over time.

**A straight line does not mean that the object is not moving! (ex. A car using cruise control)**



1. *POSITIVE ACCELERATION:*



This graph shows increasing speed.

The moving object is **accelerating**.

1. *NEGATIVE ACCELERATION:*



This graph shows decreasing speed.

The moving object is **decelerating.**