**Velocity vs. Time Graph Reinforcement**

Name:

A horizontal line on the V-T graph means constant velocity.



* A velocity-time (V-T) graph shows an object’s velocity as a function of time.
	+ A horizontal line = constant velocity.
	+ A straight sloped line = constant acceleration.
		- Acceleration = change in velocity over time.
	+ Positive slope = positive acceleration.
		- Not necessarily speeding up!

If an object isn’t moving, its velocity is zero.



* + Negative slope = negative acceleration.
		- Not necessarily slowing down!
* If the V-T line has a positive slope, the object is undergoing acceleration in positive direction.

V-T graph has positive slope.



* + If v is positive also, object is speeding up.
	+ If v is negative, object is slowing down.
* If the V-T line has a negative slope, the object is undergoing acceleration in the negative direction.
	+ If v is positive, the object is slowing down.
	+ If v is negative also, the object is speeding up.

**Use the graph below to fill out the data table.**



|  |  |
| --- | --- |
| **Scenario** | **Segments** |
| Moving at a constant speed |  |
| Speeding up |  |
| Slowing down |  |
| Not moving at all |  |