**Chapter 10 - UNIFORM MOTION**

**UNIFORM MOTION** describes a motion at a constant velocity, with absolutely no change in speed or direction. This motion is often observed in some behavior or objects that move in almost straight lines at almost constant speed (for example, the gymnast performing and the tiger running in circles).

***There are three types of uniform motion:***

1. No motion at all – this illustrate that the object is stationary.
2. Uniform motion up – this indicates that the motion is moving to the right or forward
3. Uniform motion down – this indicates that the motion is moving to the left or backward

***(Refer to Figure 10.3 on page 322 for the three basic types of position-time graphs for uniform motion and Figure 10.4 for the interpretation of the graph of uniform motion.)***

**SLOPE** refers to the steepness of the object’s position. It describes if the object is slanting or inclining upward or downward. In graphs, a positive slope rises as you move to the right while a negative slope fails as you move to the right.

***CALCULATING AVERAGE AND INSTANTANEOUS VELOCITY***

T o solve for the average velocity, we use the formula

V**av** = ∆d / ∆t

A car’s speedometer and a police radar gun record instantaneous velocity. For computing instantaneous velocity, you need to measure the average speeds over a smaller and smaller intervals.

**PRACTICE:**

1. Examine the position-time graph on page 329, # 2.
2. Complete the table below:

|  |  |  |
| --- | --- | --- |
| d | t | vav |
| 10.5 m | 4.3 s |  |
|  | 8.2 s | 25 m/s |
| 164 km |  | 110 km/h |

**HOMEWORK:**

1. What are the special features of uniform motion?
2. Give 2 examples of behaviour of objects displaying uniform motion.