Section E: Kinematic Graphs 2 Unit: One-Dimension Kinematics Level 2

Objectives:

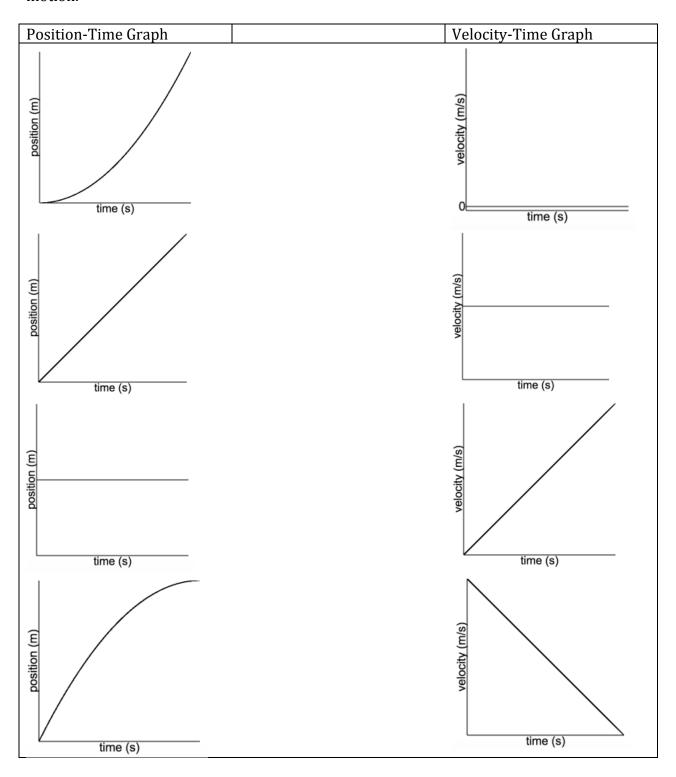
Connect kinematic graphs related to the following types of motion

- 1. constant velocity motion
- 2. not moving
- 3. positive acceleration motion (speeding up)
- 4. negative acceleration motion (slowing down)

Unlike the previous quiz, which was entirely multiple choice, this quiz will require you to select *position*, *velocity*, and *acceleration* graphs that are related to each other.

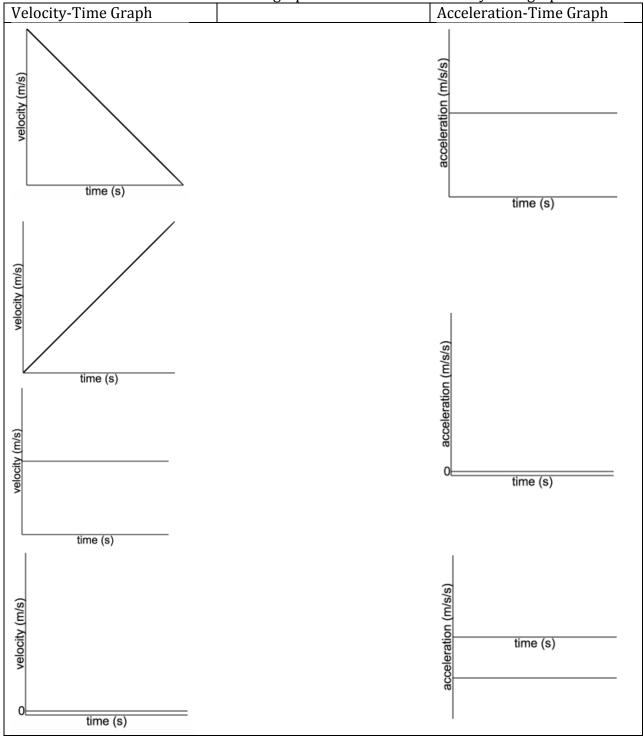
5 – 8POSITION-TIME graphs and VELOCITY-TIME graphs represent the same motion in different ways.
Connect the POSTION-TIME Graph to the VELOCITY-TIME graph that describes the same

Connect the POSTION-TIME Graph to the VELOCITY-TIME graph that describes the same motion.



For each of the following situations, draw both the <i>position-time</i> and <i>velocity-time</i> graphs. Make sure that you <i>label the axes</i> on every graph!
9. A car driving at a constant velocity.
10. A parked car.
11 A gay the driver is pressing the assolurators
11. A carthe driver is pressing the accelerator!
12. A carthe driver is pressing the brake!

5 – 9 Connect each velocity-time graph to the corresponding acceleration-time graph. Note that one of the acceleration-time graphs connects to *two* velocity-time graphs.



Part 5: A reference of all graphs you must memorize:

CONSTANT VELOCITY acceleration (m/s/s) position (m) time (s) time (s) time (s) POSITIVE ACCELERATION acceleration (m/s/s) velocity (m/s) position (m) time (s) time (s) time (s) NEGATIVE ACCELERATION acceleration (m/s/s) velocity (m/s) position (m) time (s) time (s) time (s) NOT MOVING acceleration (m/s/s) velocity (m/s) position (m)

time (s)

time (s)

time (s)