Section F: Drawing Kinematic Graphs Unit: One-Dimensional Kinematics Level 2

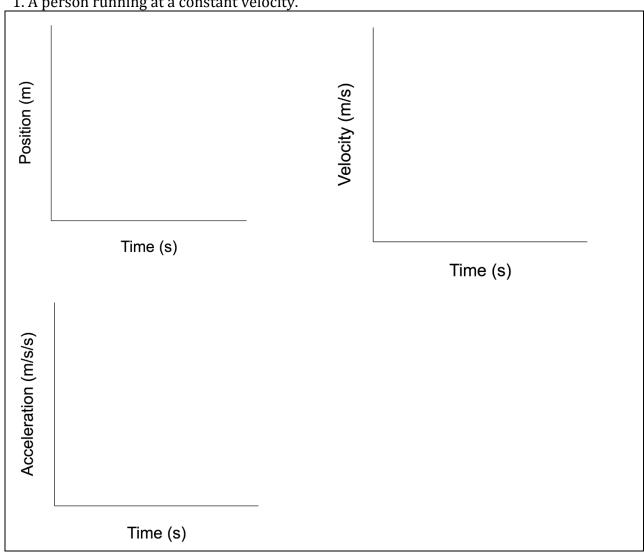
Objective: Draw kinematic graphs for each of the following types of motion:

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

On this quiz, you need to *memorize* and *draw* what the graphs look like.

For each of the following descriptions, draw all three types of graph (position-time, velocity-time, and acceleration-time). Make *sure* that you appropriately label the axes of each graph.

1. A person running at a constant velocity.



2. A person sitting around, not moving anywhere. Position (m) Velocity (m/s) Time (s) Time (s) Acceleration (m/s/s) Time (s)

3. A person who is accelerating, with a positive acceleration. Position (m) Velocity (m/s) Time (s) Time (s) Acceleration (m/s/s) Time (s)

4. A person is slowing down, with a negative acceleration. Position (m) Velocity (m/s) Time (s) Time (s) Acceleration (m/s/s) Time (s)

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)