

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

### Distance-Time Graphs

Describing the motion of an object is occasionally hard to do with words. Sometimes graphs help make motion easier to picture, and therefore understand.

Plotting distance against time can tell you a lot about motion. First, look at the axes:

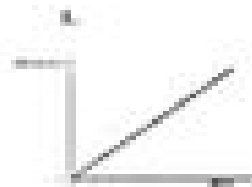


Time is always plotted on the X-axis (bottom of the graph). The further to the right on the axis, the longer the time from the start.

Distance is plotted on the Y-axis (side of the graph). The higher up the graph, the further from the start.

Match each of the following:

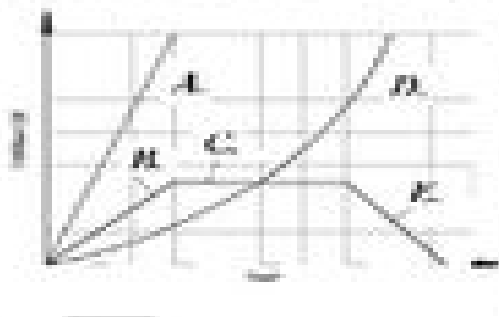
- A. the car is stopped
- B. the car is traveling at a constant speed
- C. the speed of the car is decreasing



1. Graph 1 matches description \_\_\_\_\_ because \_\_\_\_\_

2. Graph 2 matches description \_\_\_\_\_ because \_\_\_\_\_

3. Graph 3 matches description \_\_\_\_\_ because \_\_\_\_\_



Match the part of the graph to the description:

- 4. Stationary \_\_\_\_\_
- 5. Increasing speed \_\_\_\_\_
- 6. Slow & constant speed \_\_\_\_\_
- 7. Fast & constant speed \_\_\_\_\_
- 8. Returning to start \_\_\_\_\_

#### Summary:

- The steeper the graph, the faster the motion.