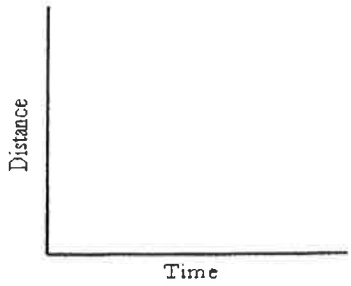
Name _____ Date _____ Period _____

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:



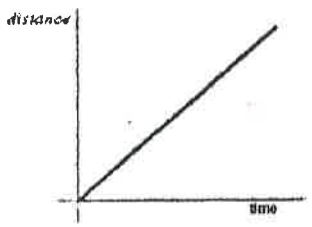
Time is always plotted on the X-axis (bottom of the graph). The further to the right on the axis, the longer the time from the start.

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

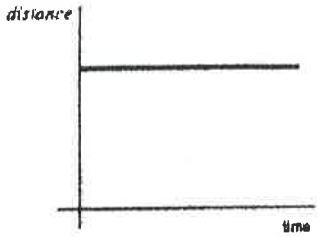
Match each of the following:

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

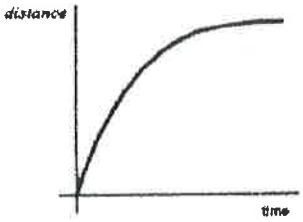
1.



2.



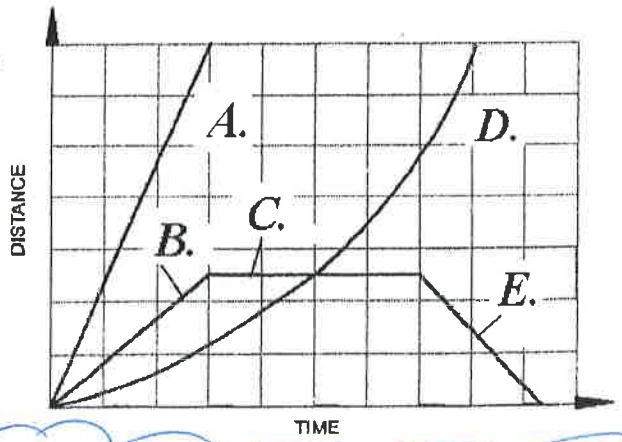
3.



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: _____

LOOK HERE!!

Summary:

- The steeper the graph, the faster the motion.
- A horizontal line means the object is not moving. It is stationary.
- A curved line means the speed is changing by speeding up or slowing down.