**Scientist: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per: \_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_**

**Weekend Graphing HW**

Answer the series of questions using the following position-time graph.



***x***

***(m)***

1. How far does the object travel during the first 5 seconds (1 to 5 s)?
2. How far does the object travel during the second 5 seconds (5 to 10 s)?

1. How far does the object travel during the third 5 seconds (l0 to 15 s)?

1. How far does the object travel du ring the fourth 5 seconds (15 to 20 s)?

1. How far does the object travel during the last 10 seconds (20 to 30 s)?

1. During which time interval(s) is the object standing still?

1. How fast is the car moving during the first 5 seconds?
2. How fast is the car moving during the last 10 seconds?

**Sketch the distance-time graphs and speed vs. time graphs for each of the following scenarios. Explain your sketches.**

1. An elevator that ascends from the lobby to the 36th floor, stops, descends to the 27th floor, stops, and returns to the lobby.

x

v

1. A basketball is dropped (vertically) on the court and allowed to bounce up and down several times undisturbed.

x

v

1. A car on a test track performing a zero-to-sixty acceleration test.

v

x