Position-Time Graphs: Constant Speed Motion

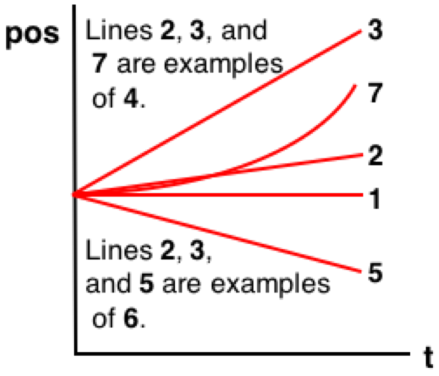
Lesson Notes

General Conclusions Regarding Pos-Time Graphs for Constant Speed Motion

- Objects moving with a **constant speed** are represented by lines on p-t graphs with a **constant slope** - i.e., the lines are straight.
- The **slope** reveals information about the **velocity** of the object.

BIG Principle: "As the slope goes … so goes the velocity."

Line(s)	Slope characteristic	Velocity Description
1	0 slope	v = 0; not moving
2		
3		
5		
7		
2, 3, 7	Positive Slope	Positive Velocity
2, 3, 5, 6	Constant Slope	Constant Velocity



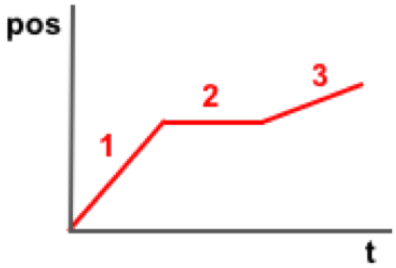
Multi-Stage Motions

Describe stages 1, 2 and 3:

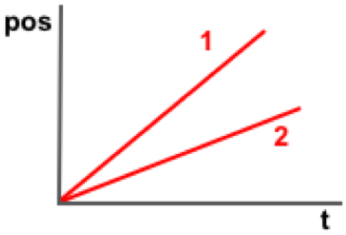
1: _____

2: _____

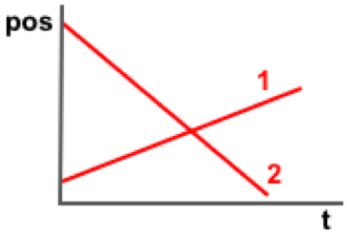
3: _____



Multi-Object Graphs:

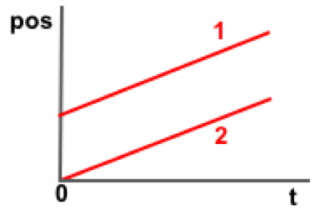
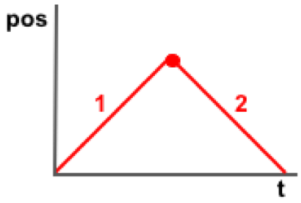


How is the motion of Object 1 different than Object 2?



How is the motion of Object 1 different than Object 2?

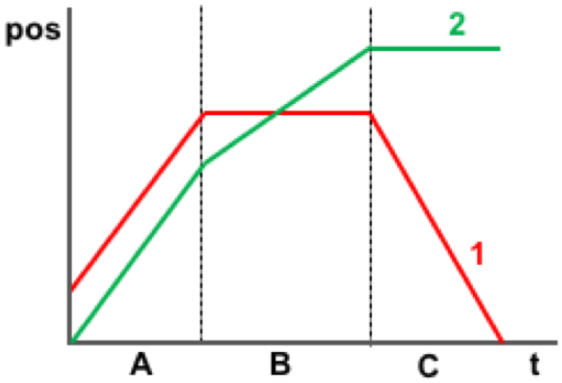
Other Interpretations:

What doe parallel lines indicate?	What do intersecting lines indicate?	What does a bending line indicate?
		
Interpretation:	Interpretation:	Interpretation:

Your Turn to Practice

The three-stage motion of **Object 1** and **Object 2** is shown. Describe each object's motion.

Object 1:



Object 2: