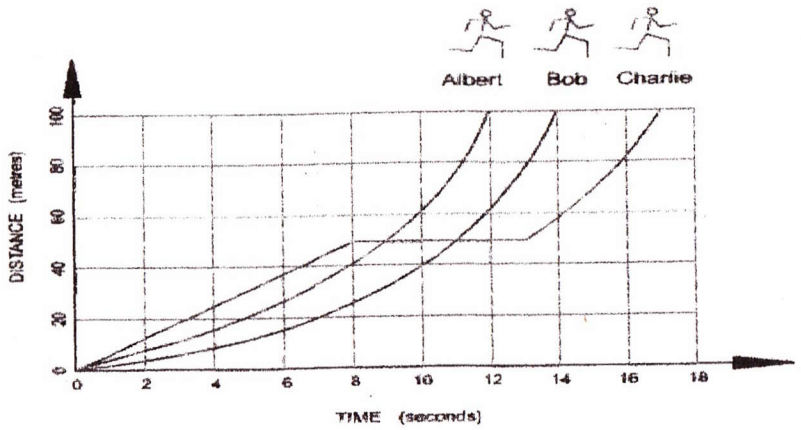
Name _____ Period _____

Speed Graphs – Now you try! (Worksheet)

Here is a graph of a 100 m. race. Use it to answer the questions below!



1. Who won the race? How do you know?
2. Who stopped for a rest? How do you know?
3. How long (time) did this runner stop?
4. How long did Bob take to complete the entire race? (Hint: look at the time).
5. Who came in last place? How do you know?
6. What was Albert's average speed for the race?
   (hint: Divide his entire distance by the entire time – use the triangle)!
7. What was Bob's average speed for the race?
8. What was Charlie's average speed for the race?

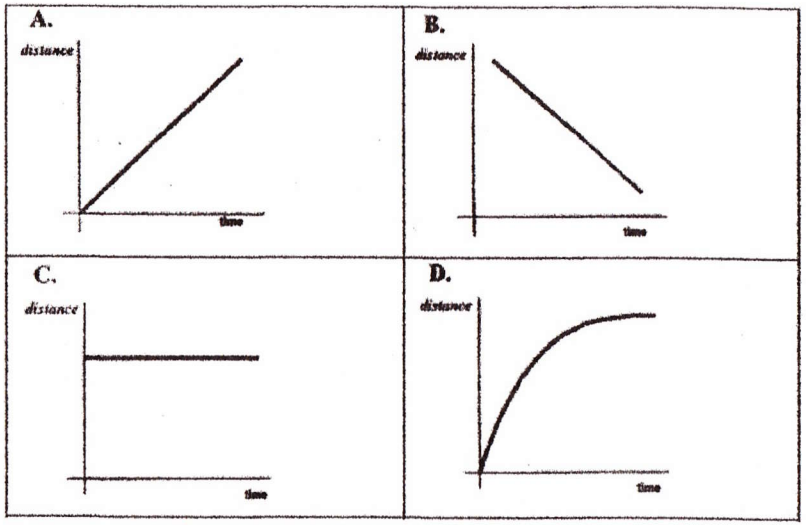
FLIP SIDE →

BINDER – Stamped

The distance-time graphs below represent the motion of a car. Match the descriptions with the graphs. **Explain your answers.**

Descriptions:

1. The car is stopped.
2. The car is traveling at a constant speed.
3. The speed of the car is decreasing.
4. The car is coming back.



Graph A matches description ____ because _____.

Graph B matches description ____ because _____.

Graph C matches description ____ because _____.

Graph D matches description ____ because _____.

Name _____

Graphing Lab: Constant Speed

Problem: What does a distance-time graph of constant speed look like?

Materials: Pencil/Pen Graph Paper Metric Ruler

Procedure:

1. The figure below shows a series of flash shots of a hockey puck sliding across a floor. The time between each flash is 0.1 second.
2. Position the 0-cm mark of the metric ruler on the front edge of the first puck. This position will represent distance 0.0 cm at 0.0 second. (This is your reference point). Record data in the data table.
3. WITHOUT MOVING THE RULER, determine the distance of each puck from the first puck.
4. Record each distance to the nearest 0.1 cm in your data table.

Time (sec)	Distance (cm)
0.00	
0.10	
0.20	
0.30	
0.40	
0.50	
0.60	

1. What kind of line is on a constant speed graph?

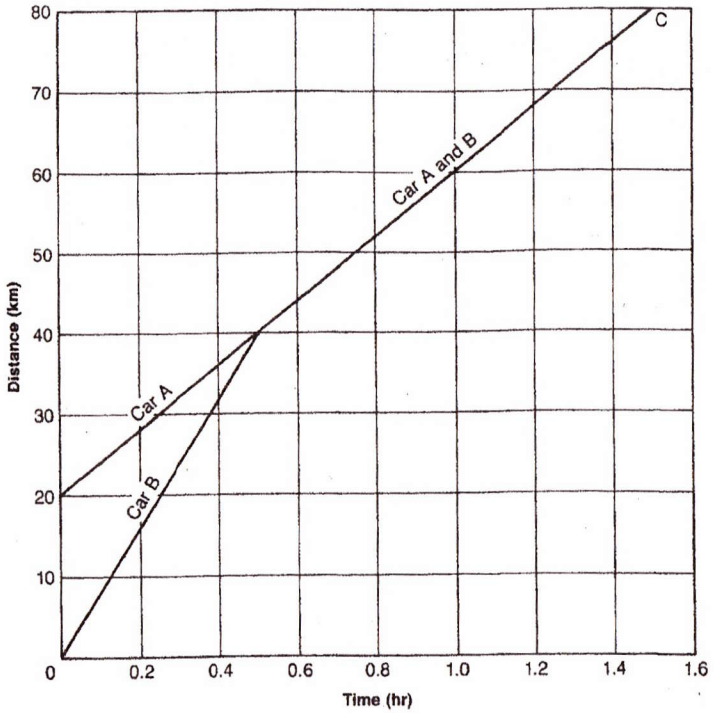
2. Is the speed constant? How do you know?

3. What is the average speed for the entire distance traveled by the puck?

4. If the puck were to slow down and come to a stop, what would your graph look like? Draw a picture if you wish.

Name _____

The Speedy Journey



1. How far (distance) did car A travel **before** it met car B? _____
2. How long (time) had the two cars been traveling **before** they met? _____
3. How far (distance) did both cars travel at the same speed? _____
4. How long (time) did it take both cars to get to point C? _____
5. Which car had constant speed for the whole trip? _____
6. What is car's speed? (Total distance/total time). _____
7. What were the two different speeds for the other car? _____