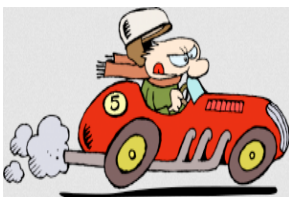


Name _____ Date _____ Period _____



HOT WHEELIN' PHYSICS

BACKGROUND: The motion of an object can be described in terms of speed, direction and change of position. Analyze the speed of the vehicle between various points and overall speed.

MATERIALS:

- Meter stick
- Masking tape
- Toy car
- Racetracks
- Five stopwatches

PROCEDURE:

1. Set up a 5-meter racetrack.
2. Mark off 1, 2, 3, 4 and 5-meter positions.
3. Position a student at each meter point along the racetrack with a stopwatch.
4. Release the car and have each of the 5 students click their stopwatch as the car passes their meter point.
5. Record the time in the data charts.
6. Repeat steps 3, 4 and 5 for two more trials.

TRIAL 1

POINT	DISTANCE	TIME
A		
B		
C		
D		
E		

TRIAL 2

POINT	DISTANCE	TIME
A		
B		
C		
D		
E		

TRIAL 3

POINT	DISTANCE	TIME
A		
B		
C		
D		
E		

$$\text{SPEED} = \text{DISTANCE} \div \text{TIME}$$

1. Using the equation, calculate the speed for each trial using the total time and total distance. Show your work!

Trial 1: _____ Trial 2: _____ Trial 3: _____

2. Calculate the speed from Point B to Point C for each trial. Show your work!

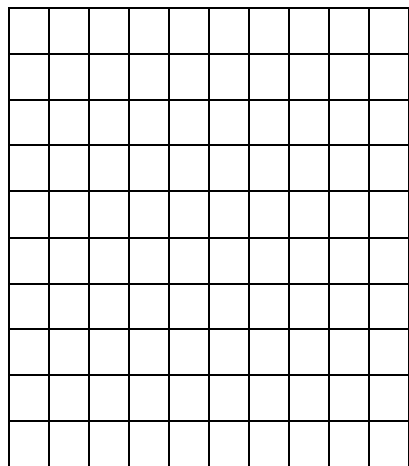
Trial 1: _____ Trial 2: _____ Trial 3: _____

3. Calculate the speed from Point D to Point E for each trial. Show your work!

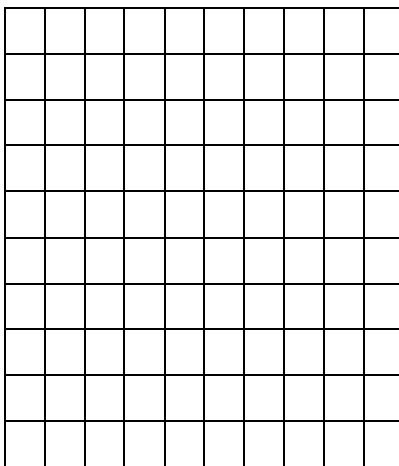
Trial 1: _____ Trial 2: _____ Trial 3: _____

4. Construct a graph to show your results. Be sure to label each graph!

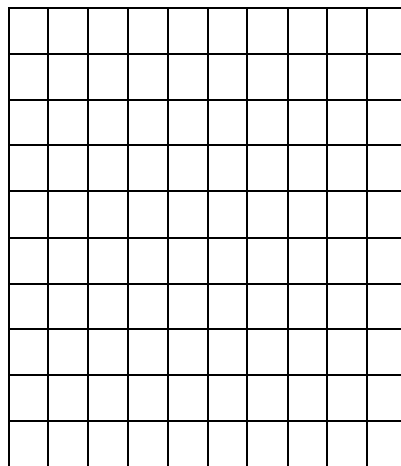
TRIAL 1



TRIAL 2



TRIAL 3



ANALYSIS/CONCLUSIONS:

1. Do your graphs represent a constant speed or an average speed?

2. Are your results reliable? _____

Explain: _____
