

Do Now

- Take out the homework.
- Solve the following:
- Batman is out to get the Joker. Joker is 50m ahead of batman. They begin running in the same direction at the same time. If Batman runs at 7.2m/s and Joker runs at 6.3m/s , how long does it take for Batman to catch Joker?

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Today

- Buggy Lab
- Graphing in Excel.

Statement of the Problem

- How do we determine and describe the motion of the car using mathematical and graphical representations?
- How can we measure such an event in order to collect this sort of data?

Hypothesis

- An object moving at a constant velocity has a direct (linear) relationship between position of the object and time.

Materials

- Battery-operated cars (2).
- Stop Watch (you may use phones)
- Meter Stick
- Masking Tape

Procedure

- Mark the initial position of the buggy with tape. Start the stop watch and buggy at the same time. At even time intervals, mark the position of the buggy. (Take at least 8 data points and catch the buggy before it hits the wall.) Measure and record the displacement of the buggy. Repeat 3 times.

Excel

- Fit a curve (equation) to the data using excel.
- Save document as
3FirstnamelastinitialBuggyLab.
- Ex: 3JohnDBuggyLab

On School Wires

- Download the Buggy Lab Sheet.
- Copy the data into a table in the document.
I will show you how to do this.
- Also, paste the graph into the document.

Analysis

- Write an equation for each buggy.
- Explain what each value in the equation means. This is the conclusion.
- Answer the questions that are below the analysis section.

Submit to my drop folder.

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