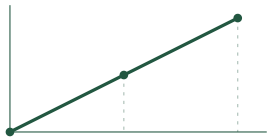
Is the bike speeding up?

A bike has travelled ten metres after two seconds and twenty after four. Plot time horizontally and distance vertically. What is its average speed over each interval?



My prediction and my drawing

Your next experiment

Draw a steady ride and a stop at a light. Explain how someone can recognise the stop in your graph.

My result

Does a half get smaller when you fold it?

Take two equal strips of paper. Fold one into two equal parts and the other into four. Shade one half and two quarters. Lay the shaded areas over each other.



My prediction and my drawing

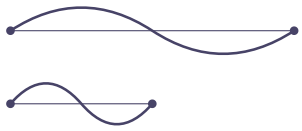
Your next experiment

Is half a small note the same size as two quarters of a large sheet? Draw a counterexample.

My result

Can you hear which string is shorter?

Two strings of the same material and thickness are under the same tension. Only half as much of the second string vibrates. How does the note change?



My prediction and my drawing

Your next experiment

Hum the same note softly and then more loudly. What did you change? Now hum a higher note at a similar volume.

My result

The train question for two

The train is moving in a straight line at a steady speed. You toss a ball straight up. Where will you catch it? Sketch both your predictions. Ignore air resistance.

https://clarity.audecius.com/en/learn-different/fragen#zug

