

Section 10.1 Math Link

This worksheet will help you with the Math Link on page 379.

You are going to perform an experiment with Silly Putty®. If you have dropped a ball of Silly Putty® on a hard surface, you know that it bounces. The greater the height from which it is dropped, the higher it bounces.

Materials

- ball of Silly Putty®
- metre stick
- data table

Method

1. Secure a metre stick vertically to a wall or desk. The end that says 0 cm should touch the floor.
2. Drop the ball of putty from five different heights.
3. Use the data table to record the height of each drop, in centimetres, and the height of each first bounce, in centimetres.

Data Table		
Height of Drop, h (cm)	Height of First Bounce, b (cm)	b divided by h

4. Divide the height of each bounce, b , by the height of each drop, h . Round to the nearest hundredth. Record your answers in the final column of the table.
5. Examine the quotients you obtained in #4. State a conclusion about the results of the experiment.

6. Restate your conclusion about the experiment, using a linear equation of the form $b = kh$, where k is a numerical coefficient you determined in #4.
