

## Lifting Lever

### What You Want to Know

How much effort on one end of a yardstick is needed to lift a weight or load on the other end of the yardstick?

### What You Think Will Happen

The center of a yardstick is placed on a triangular cardboard stand called a *fulcrum*. A cup of pennies (the *load*) is placed at one end of the yardstick. A cup of pennies on the other end of the yardstick is used to lift the load. As the cup is moved closer to the fulcrum, the number of pennies needed to lift the load

- a. increases.                      b. decreases.                      c. does not change.

### What Happened

Distance from fulcrum to load = \_\_\_\_\_

Number of pennies in load = \_\_\_\_\_

(Distance to load) × (pennies in load) = \_\_\_\_\_ Record your observations in the table.

Distance from fulcrum to effort	Number of pennies needed to lift load	(Distance to effort) × (pennies in effort)

### What It Means

What do your observations tell you about how the effort changes as it is moved closer to the fulcrum?

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What do you notice about how the numbers in the third column of the table compared to the distance to the load multiplied by the number of pennies in the load?

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