**The Uneven Balance**

1. Use one of the uncentered holes as the fulcrum.
2. Place the solo cup filled with pinto beans on the shorter side on the balance.
3. Place the other solo on the other side and add pinto beans until the sides balance.

Mass of heavier cup: \_\_\_\_\_\_\_\_\_\_ g

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1. Find the ratio of the mass of the heavier cup to the lighter cup.

\_\_\_\_\_\_\_\_\_\_\_\_\_ : \_\_\_\_\_\_\_\_\_\_\_\_\_

1. Measure the distance between the fulcrum and centers of the cups. (Note that this is easier with the arm removed.)

Shorter distance: \_\_\_\_\_\_\_\_\_\_\_ cm

Longer distance: \_\_\_\_\_\_\_\_\_\_\_ cm

1. Find the ratio of the longer distance to the shorter distance.

\_\_\_\_\_\_\_\_\_\_\_\_\_ : \_\_\_\_\_\_\_\_\_\_\_\_\_

1. What do you notice about the ratios?