

Name: \_\_\_\_\_ Date: \_\_\_\_\_

$m_r^\beta$  **Physics Practice: The mass balance**

Have a look at the mass balance at <http://www.mrbenson.org/magic-mass-balance/>. Familiarize yourself with how it works.

1. There is a mathematical relationship between the masses and the lengths of the arms of the mass balance. Describe how you would go about finding this relationship. Hint: recall how you studied circular motion, and found a relationship between mass, speed, radius, and force.

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2. Carry out your search for the relationship, and summarize your findings with a formula relating masses and distance from the center of mass.