

Phet Levers Balancing Lab

- Google "[Phet Balancing Act.](#)"
- Select the "Balance Lab" option.
- Change the position from "None" to "Marks."
- Take out the podiums that are holding up the lever.



- Now play with the simulation for about 10 minutes and answer the questions below.
1. In order to balance that same masses you need to have the masses at which distances from the fulcrum.
 2. If a mass is twice the weight of another mass it needs to be how much closer to the fulcrum than the lighter mass?
 3. If a mass is three times heavier than another mass, how much further away from the fulcrum should the lighter mass be in order to balance out?
 4. If a mass is four times lighter than another mass, how much closer from the fulcrum should the heavier mass be in order to balance out?
- Now select the game from the bottom options.
 - Complete levels 1, 2, and 3. Fill in the chart below.

6.

	Level one	Level 2	Level 3
Score			

7. A lever is used to lift a 350N object placed 4 meters from the fulcrum. An effort force of 150N is placed 15m from the fulcrum.
 - a. Calculate the MA of the machine.
 - b. Calculate the IMA of the lever.