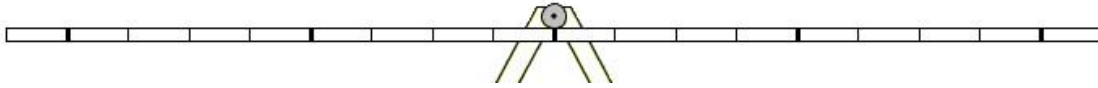


Prelab7 Simulation: (Thanks to Ariel Paul, PHET, Balancing Act Pre-Lab Final Version 9/13/11)

PHET is a popular website with simulations developed at the University of Colorado. Let's use one of their simulations to prepare for our lab. Find "Balancing Act" on the PHET simulations website on your computer. ([https://phet.colorado.edu/sims/html/balancing-act/latest/balancing-act\\_en.html](https://phet.colorado.edu/sims/html/balancing-act/latest/balancing-act_en.html)).

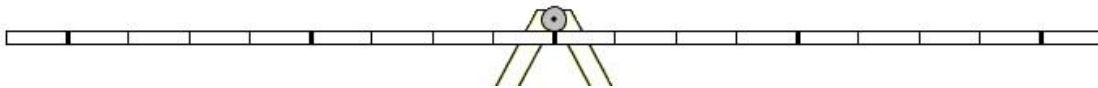
Click on "Balance Lab" and answer the following questions using the simulation:

The following picture represents a board that can pivot at its center



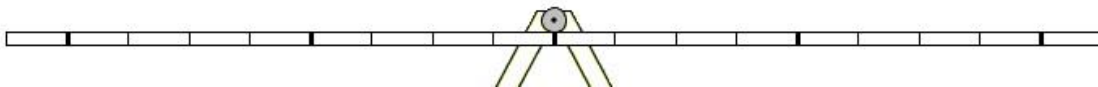
1. Draw what would happen to the board if you stood on one end.

2. You have two identical **10 kg** bricks. Carefully draw where you would place each brick on the board so that the board stays balanced. (*More than one possible correct answer*)



3. Now draw the forces from each brick in your picture above.

4. You have a **10 kg** brick and a **20 kg** brick. Carefully draw where you would place each brick on the board so that the board stays balanced. (*More than one possible correct answer*)



5. Now draw the forces from each brick in your picture above, and explain why the board stays balanced.

6. Formulate the goal for today's lab: