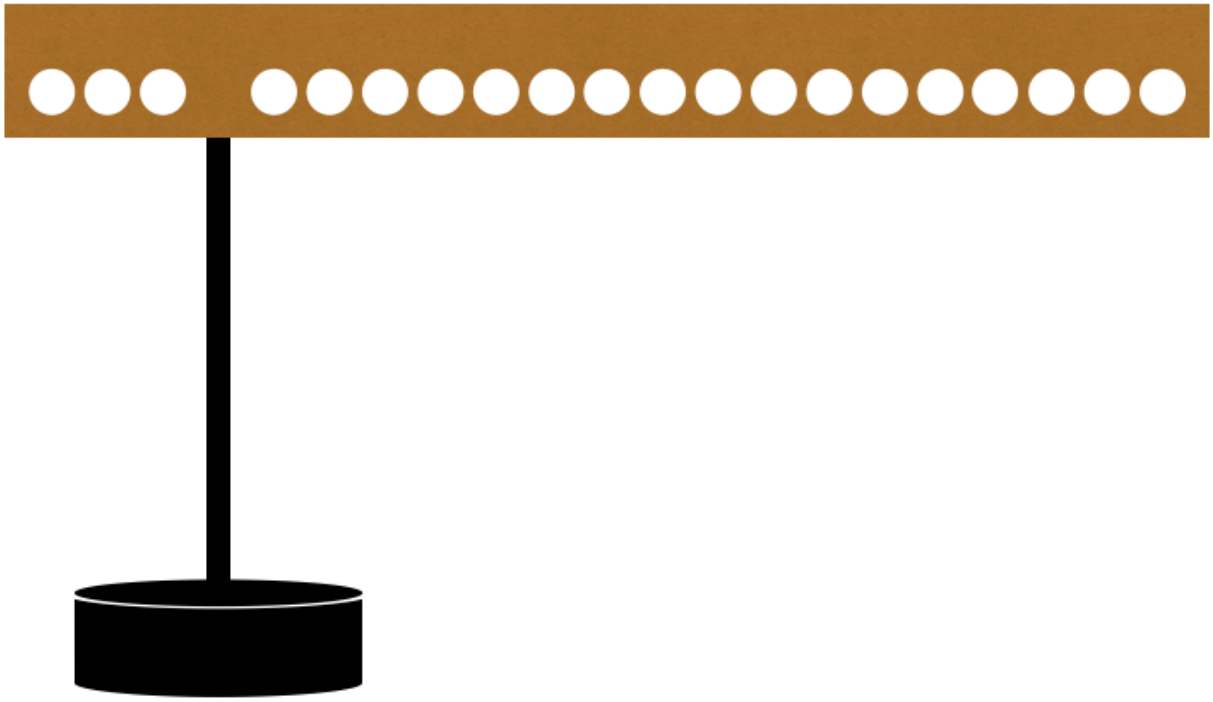
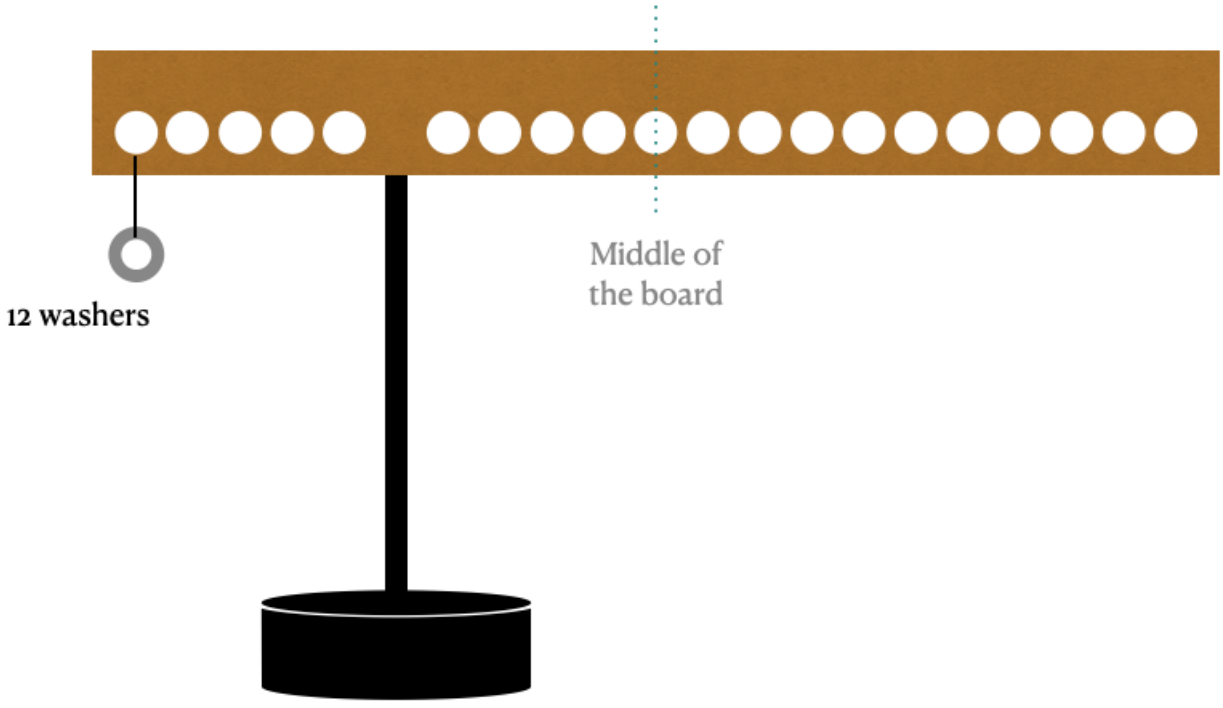
Balance Problem Set

For the following problems, assume the beams are *massed*, meaning you must account for the beam's mass in solving each problem.

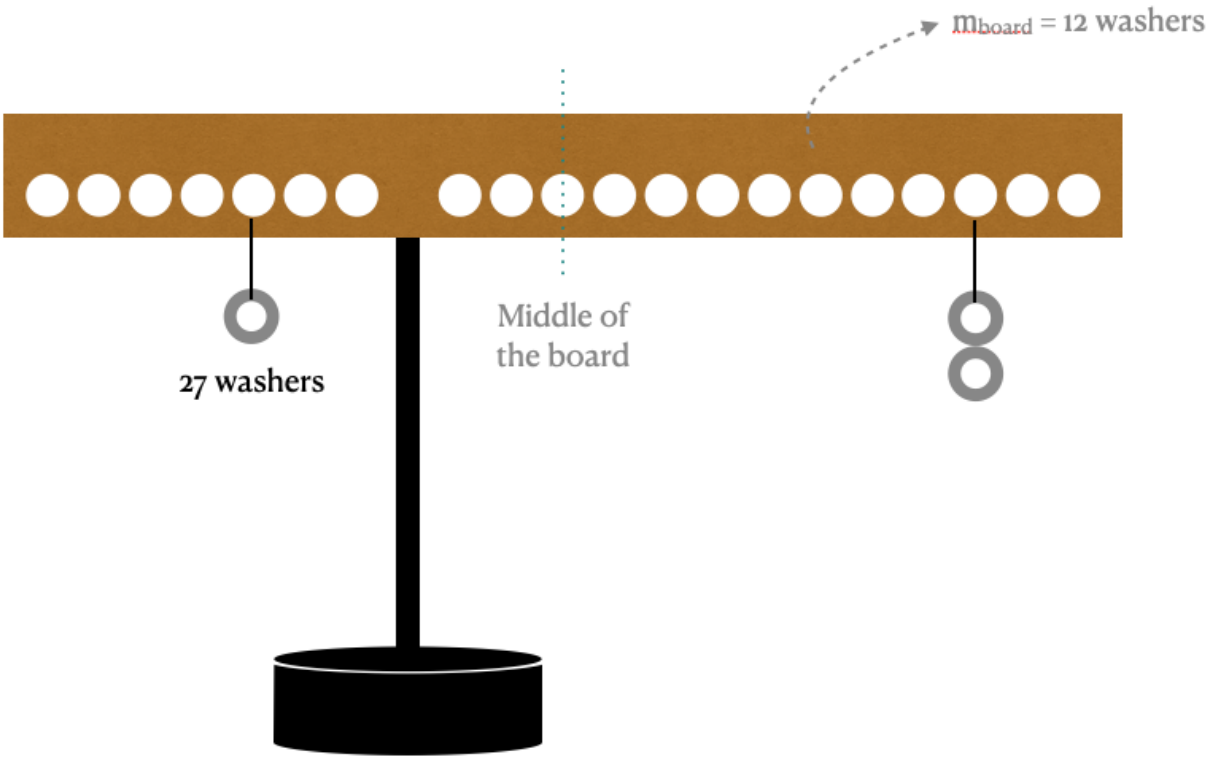
1. Examine the pegboard below. Where is the center of mass of the pegboard and how far is it from the pivot point?



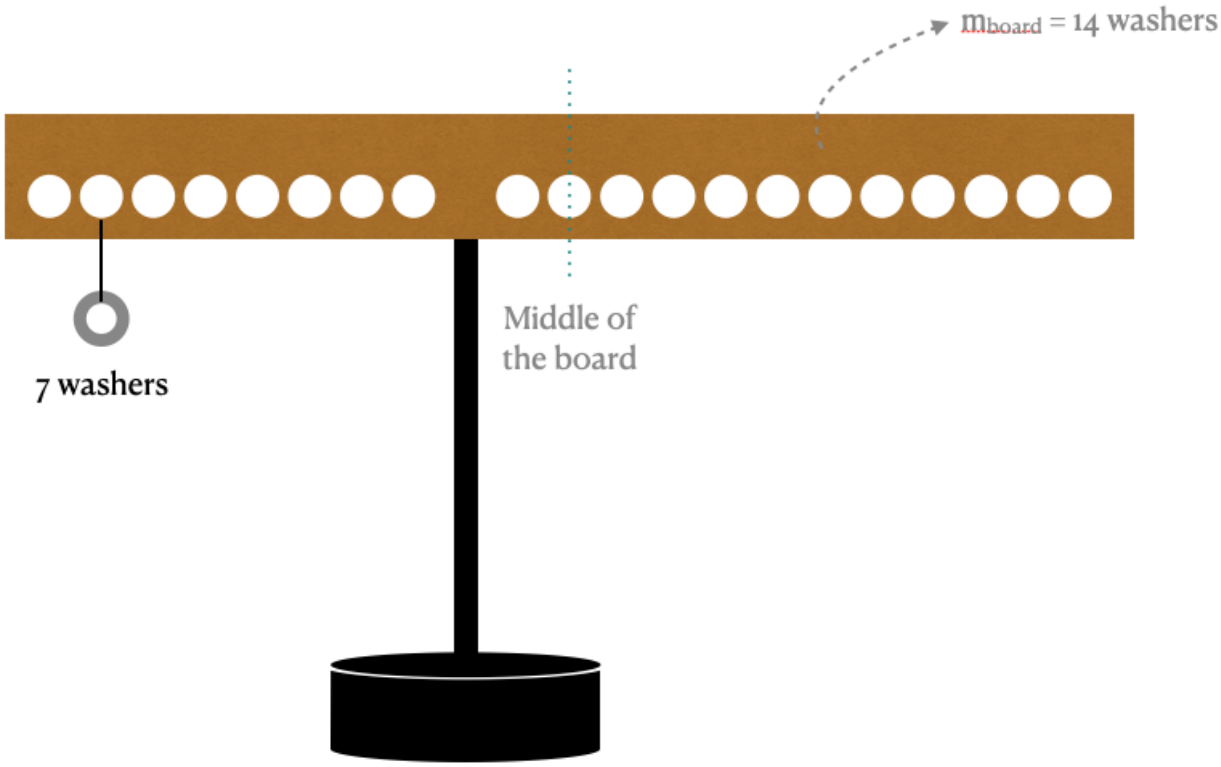
2. What's the mass of the pegboard pictured below?



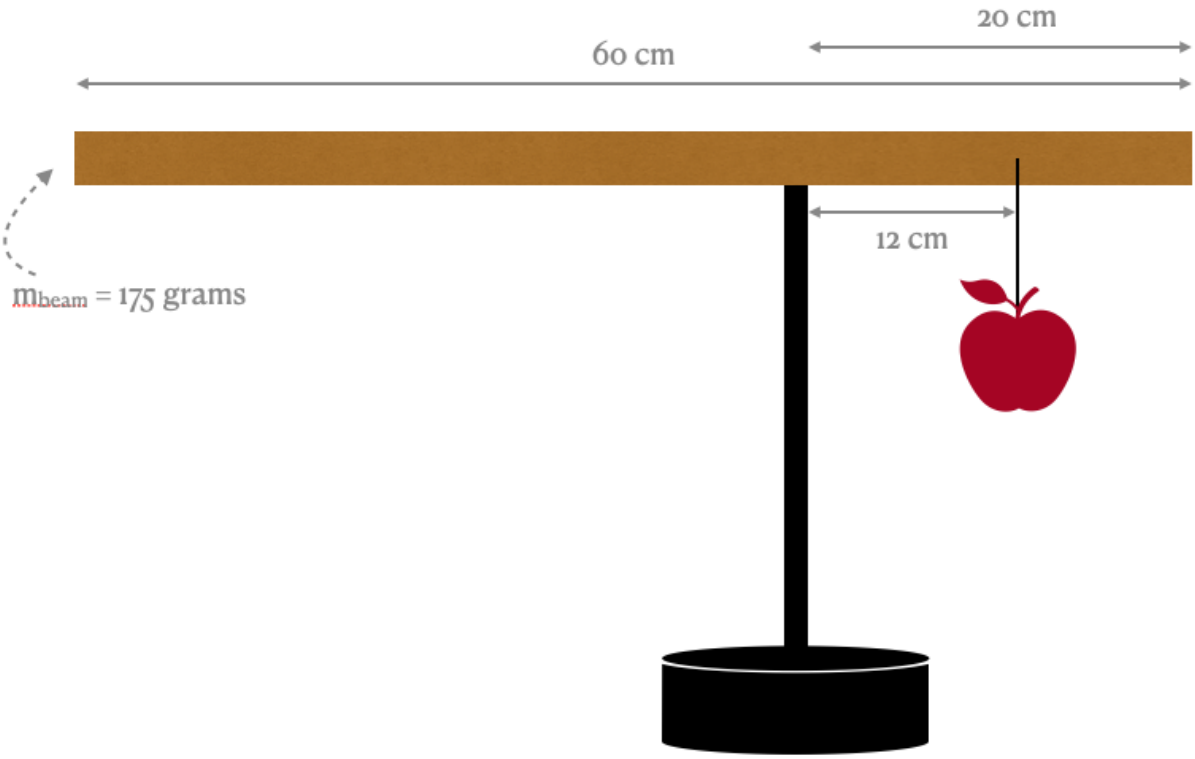
3. Look carefully at the diagram below and predict what will happen when the pegboard is released. Will the board tip left, remain balanced, or tip right?



4. Place any number of washers in any location(s) to balance this system.



5. What's the mass of the apple?



6. The meter stick below has a mass of 200 grams and is balanced with the pivot at 0.25m when a ball is hung from the left end. What is the mass of the ball?