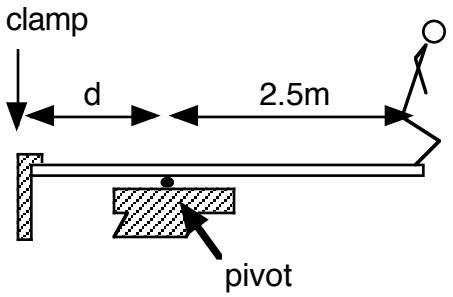
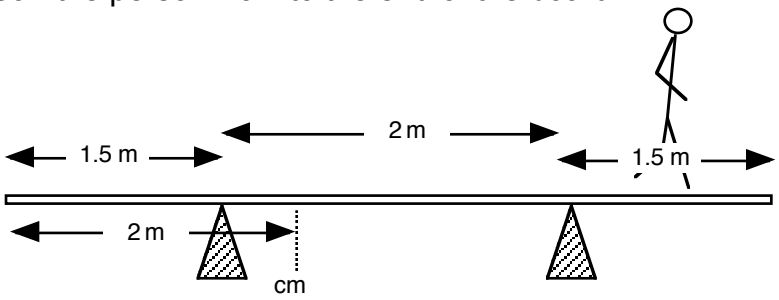
Torque and the 2nd Condition of Equilibrium

Show your work on a separate piece of paper.

The person has a weight of 725 N as he stands on the very end of a diving board. The clamp exerts a force of 1250 N on the other end of the board. The board is made from a top secret massless material that has been sought out by the Russians for decades. (They didn't find it because they never thought about shopping at Walmart.) **USING ONLY TORQUES**, determine the location of the pivot and the force it is using.



The person has a mass of 125 kg. The board's center of mass is located exactly 2 m from the left end and has a mass of 40 kg. The supports holding the board up are 1.5m from each end. Can the person walk to the end of the board?



Board mass = 40 kg