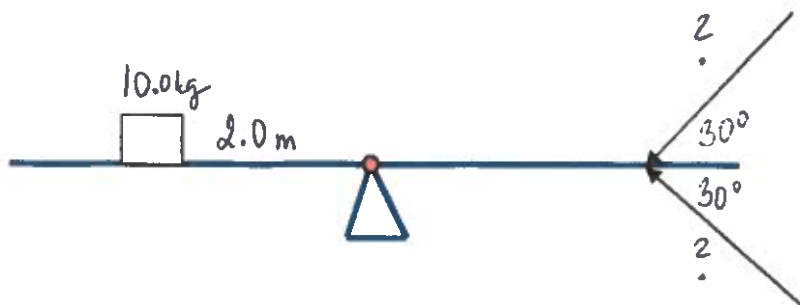


1. Find the net torque on a 15.0-kg lever that is 5.0 m long and the masses are both positioned 2.0 m away from the fulcrum. State your assumptions.



2. Explain why the torque created by the weight of the seesaw zero in question 1 is zero.

3. How much force at a 30° angle needs to be applied 3.0 m from a pivot point in order to maintain a rotational equilibrium? Assume that the lever is massless. Specify the direction of the force needed.



4. Complete the statements:

Torque is _____

Perpendicular distance from the pivot point to the line of action is _____

To ensure static equilibrium the following conditions must be met:

The magnitude of torque is given by: _____

5. Give an example of each:

➤ An object that is in translational equilibrium but not in rotational equilibrium

➤ An object that is in rotational equilibrium but not in translational equilibrium

➤ An object that does not experience rotational equilibrium or translational equilibrium.