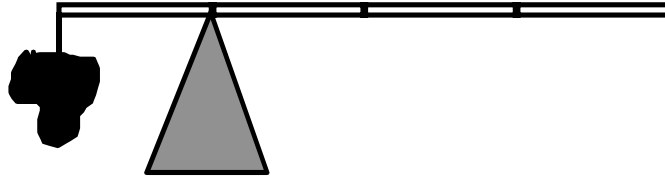


Chapter 9

A 1-kg rock is suspended by a massless string from one end of a 1-m measuring stick. What is the weight of the measuring stick if it is balanced by a support force at the 0.25-m mark?



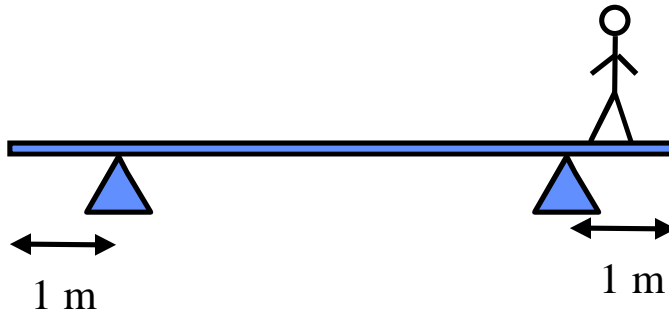
- A) 0.25 kg B) 0.5 kg C) 1kg
D) 2 kg E) 3kg

A heavy boy and a lightweight girl are balanced on a massless seesaw. If they both move forward so that they are one-half their original distance from the pivot point, what will happen to the seesaw?

- A) The side the boy is sitting on will tilt downward.
B) The side the girl is sitting on will tilt downward.
C) Nothing, the seesaw will still be balanced.
D) It is impossible to say without knowing the masses and the distances.

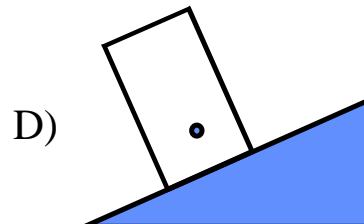
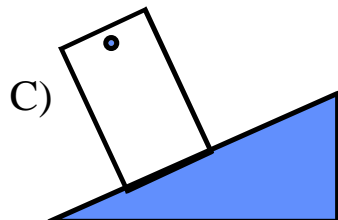
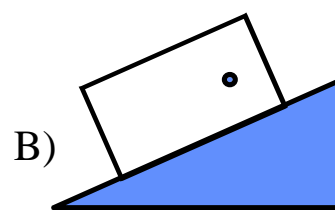
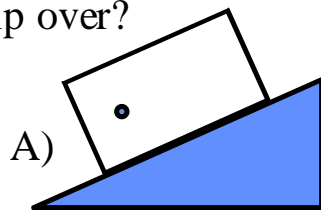
Chapter 9

A horizontal 10 m long plank weighs 100 N. It rests on two supports that are placed 1 m from each end as shown in the figure. How close to one end can a 800 N person stand without causing the plank to tip?



- A) 0 m B) 0.2 m C) 0.5 m
D) 0.6 m E) 0.8 m

A box, with its center-of-mass off center as indicated by the dot, is placed on an inclined plane. In which of the four orientations shown, if any, does the box tip over?



- E) None of the above