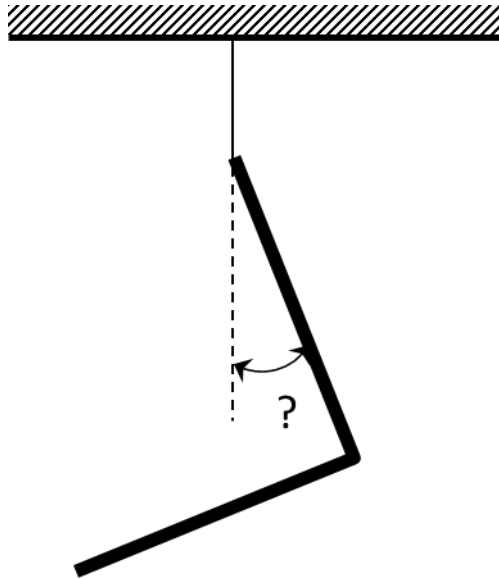


Homework 11

1. A metal rod was bent in the middle so its halves formed right angle. One end of the rod was attached to the ceiling with a piece of thread. Find the angle between the thread and one half of the rod (see Figure below).



2. A ladder of mass $m = 10\text{ kg}$ is placed against the vertical wall (see Figure below). The angle between the ladder and the floor is $\alpha = 60^\circ$. The ladder's center of gravity is in its middle point. There is no friction between the upper end of the ladder and the wall. Find magnitudes and directions of the forces applied to the ladder by the wall and the floor. Make a picture.

