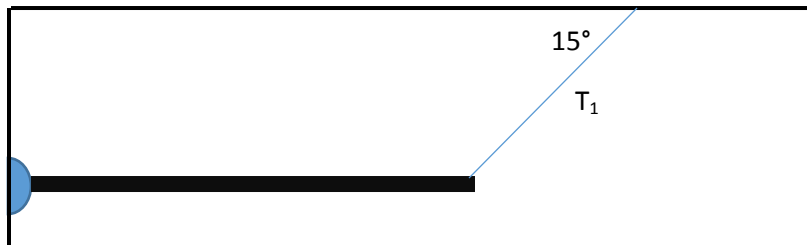


Rotational Motion Review Problems

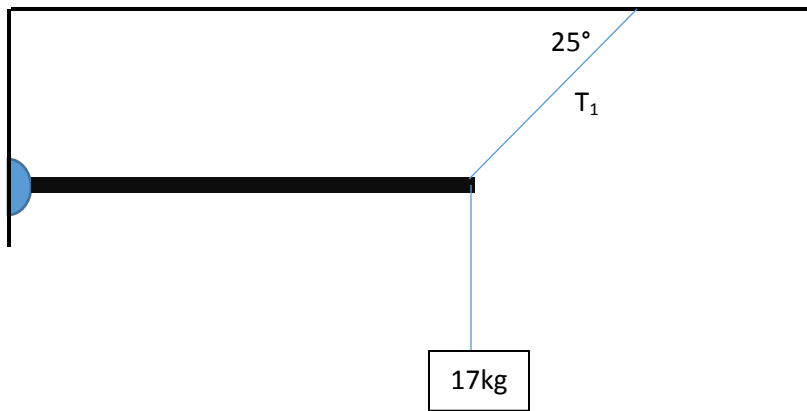
AP 1

For problems 1-3, Find T_1 and the vertical and horizontal forces on the bar in the corresponding picture. The bar has a weight of 150N in every picture.

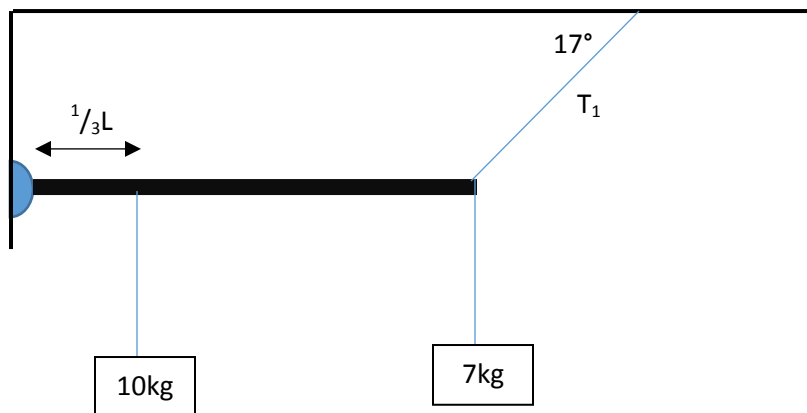
1.



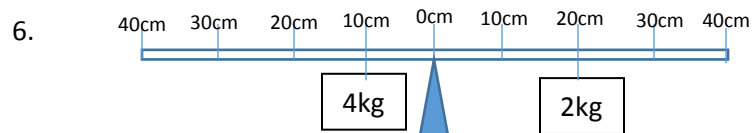
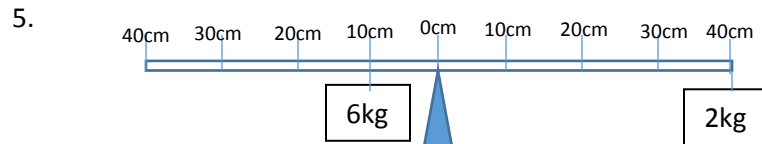
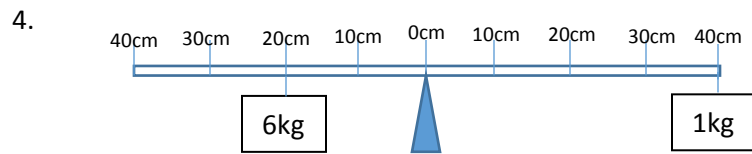
2.



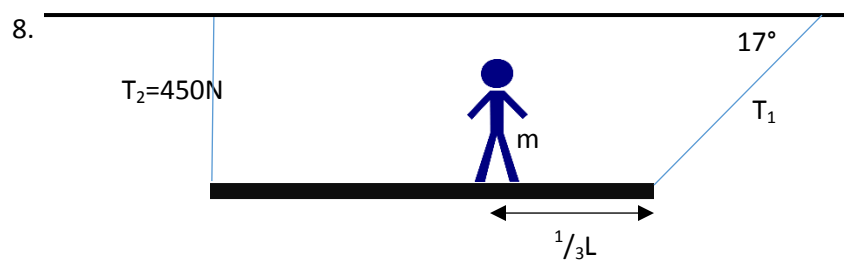
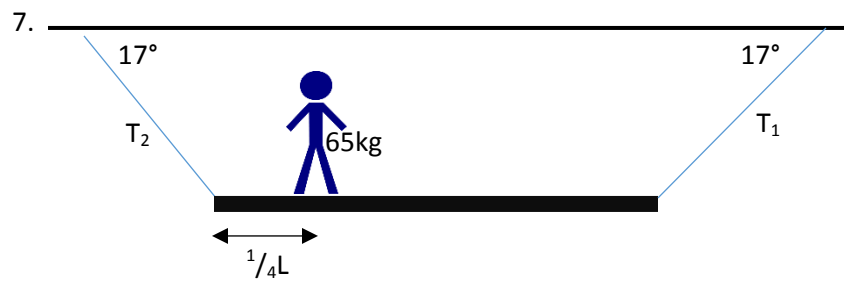
3.



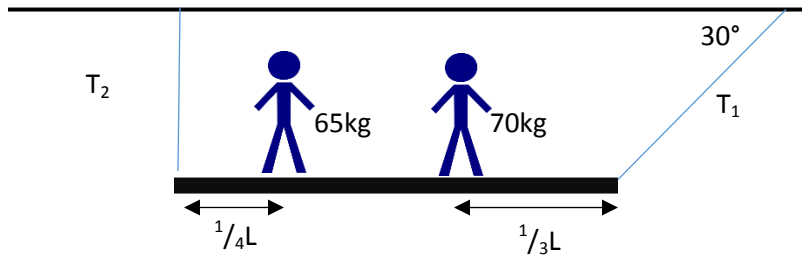
In problems 4-6, determine where to add a 2kg mass to balance the scale.



In problems 7-9, find the missing variables. The figure is at rest. The bar always has a weight of 150N



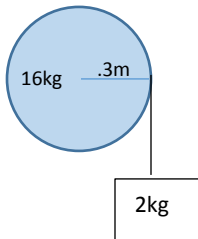
9.



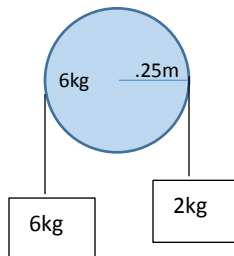
For problems 10-12, find the following:

- V of (each) mass
- ω of pulley
- a of (each) mass
- α of the pulley

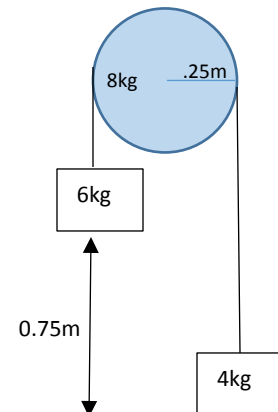
10. Find the required values after two rotations of the pulley



11. Find the required values after the heavier mass has fallen 0.5m



12. Find the required values just before the heavier mass hits the floor.



For questions 13-15, find the missing values. Assume the ball rolls without slipping. The radius is 0.07m

