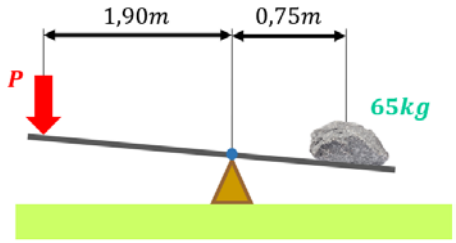
Name: _____ Date: _____

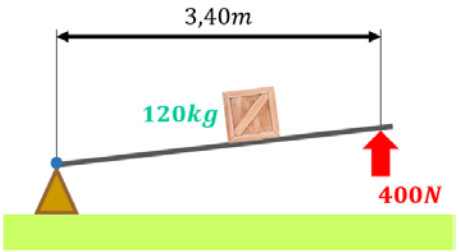
Problem 1: Calculate the weight (on Earth) of a 15kg dog. What would be its weight on the moon?

Problem 2: Calculate the mass of a cat whose weight is 42N (on Earth).

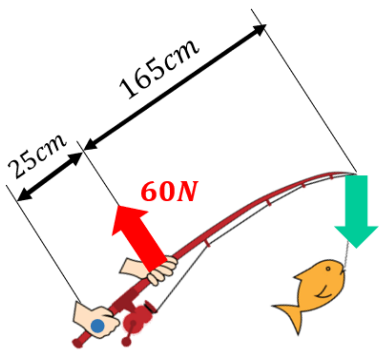
Problem 3: With the next lever you want to lift the 65 kg stone on the right. Calculate what force to exert.



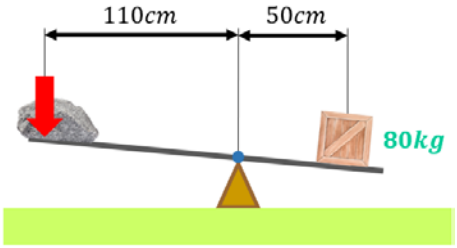
Problem 4: You want to balance the next lever. Calculate how far the box will have to be placed if it has a mass of 120kg and a force of 400N is being exerted.



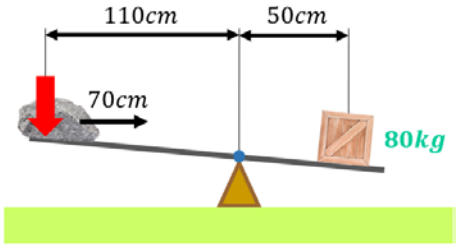
Problem 5: Calculate the mass of the fish in the drawing if it is necessary to exert a force of 60N to lift it with the rod in the drawing.



Problem 6: You want to lift the box on the right by placing a stone on the left end of the lever. Calculate the mass that the stone must have to achieve it.



Problem 7: And if the stone is placed 70cm further to the right on the same lever in the previous exercise, what mass should it have to compensate for the weight of the box?



Problem 8: Calculate the distance from the fulcrum at which the weight in the drawing must be placed so that the lever remains in balance, knowing that a force of 90N is being exerted.