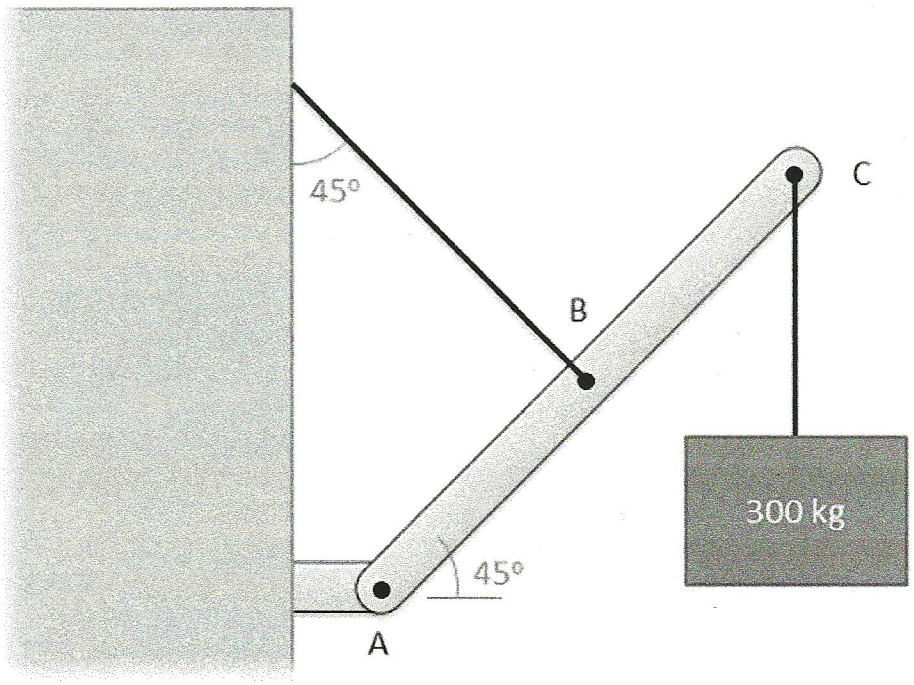
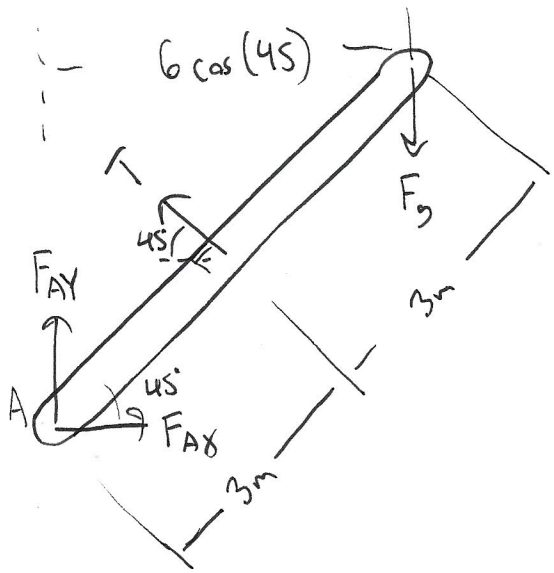
Member ABC is 6 meters long with point B being in the middle. Determine all forces acting on member ABC.



$$F_g = (300\,kg)(9.81)$$

$$F_g = 2943\ N$$



$$\Sigma F_x = F_{AX} - T\cos(45) = 0$$

$$\Sigma F_y = F_{AY} + T\sin(45) - 2943 = 0$$

$$\Sigma M_A = (3)(T) - (2943)(6\cos(45)) = 0$$

$$T = \frac{(2943)(6\cos(45))}{3}$$

$$\boxed{T = 4162\,N}$$

$$F_{AX} = T\cos(45) = 2943\,N$$

$$\boxed{F_{AX} = 2943\,N}$$

$$F_{AY} = 2943 - T\sin(45)$$

$$\boxed{F_{AY} = 0}$$