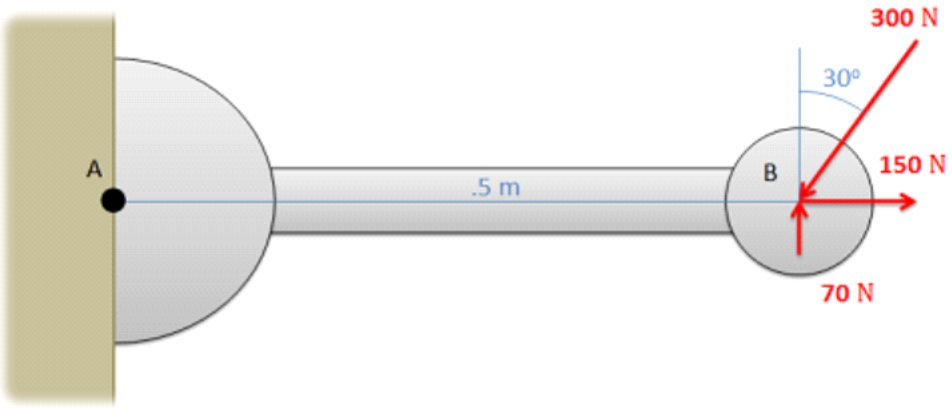
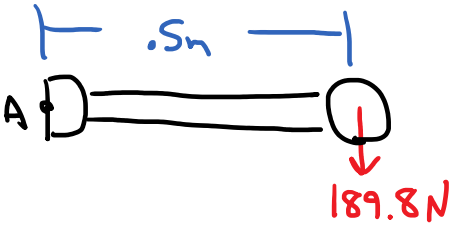
Question 1

Use Varignon's Theorem to find the moment that the forces in the diagram below exert about point A.



$$\Sigma F_x = -300 \sin(30) + 150 = 0$$

$$\Sigma F_y = -300 \cos(30) + 70 = -189.8\ N$$



$$M = F * d = (189.8\ N)(.5_m) = 94.9\ N_m \circlearrowleft$$

$$\boxed{M = -94.9\ N_m}$$