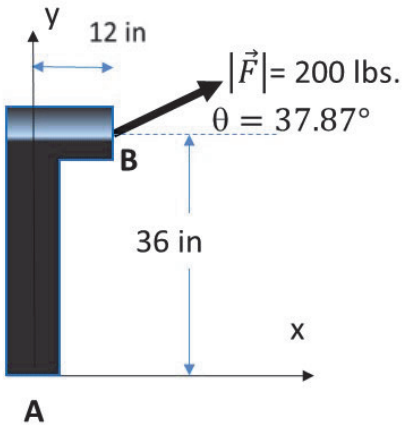
Homework H6.A

Given: Bar AB is loaded as shown.

Find:

a) Determine the angle θ that maximizes the moment about point A in the CW direction.
b) Determine the angle θ that minimizes the moment about point B.
c) For the angle shown, what is the moment of the force about A.



Homework H6.B

Given: Bar OA has a tension of T_{AB} applied by cable AB.

Find:

a) Use $\vec{r}_{OA}$ to determine the moment about point O due to the tension in AB.
b) Use $\vec{r}_{OB}$ to determine the moment about point O due to the tension in AB.

Use the following parameter values in your work: T_{AB} = 50 lb, h = 12 ft, L = 6 ft, b = 5 ft and d = 4 ft.