

Torque Homework answers (Full solutions will be posted as a Pencast after the homework is checked.)

A. P. Physics 1

1a) 8,580 N-m clockwise (CW)

b) 4,875 N-m counterclockwise (CCW)

c) 3,705 N-m CW

2) 3.7 m from the fulcrum, or 10.2 m from the left end

3) 1.12 Newtons

4) Force on the left support = 216,800 N and force on the right support = 202,800 N

5) $F_{\text{left}} = 713$ Newtons. $F_{\text{right}} = 527$ Newtons

6a) $F_{\text{left}} = 1006$ Newtons, $F_{\text{right}} = 1589$ Newtons

b) The new rope (angled) would have a greater force