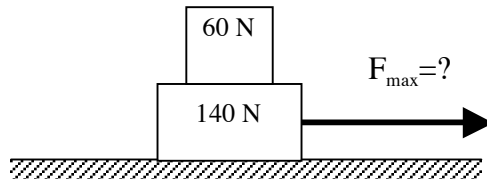


W3.12H**STATIC EQUILIBRIUM**

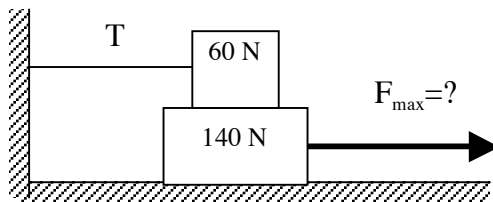
Find the maximum force and still have the system remain in static equilibrium.

[Note: $\mu_{\text{static}} = .2$ for all surfaces]

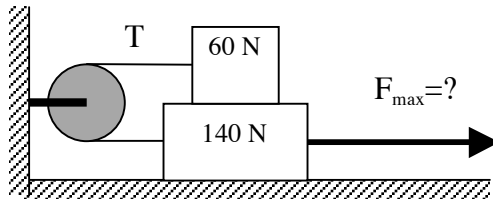
[1]



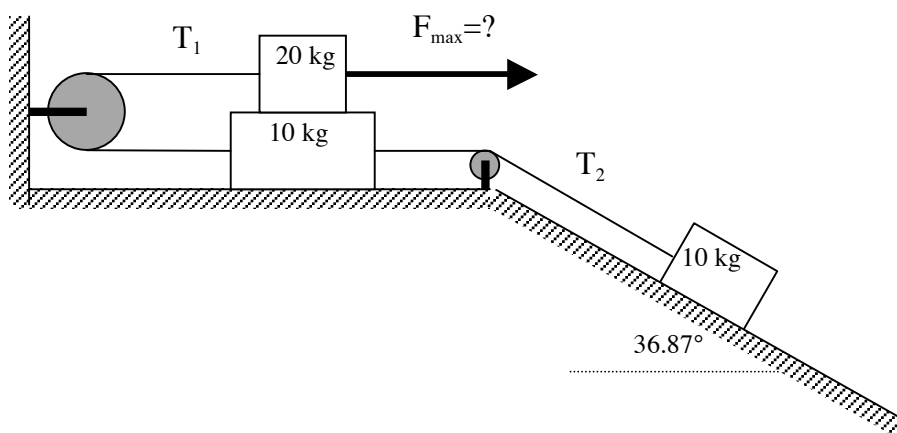
[2]



[3]



[4]

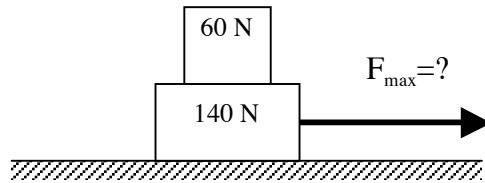


W3.12H**STATIC EQUILIBRIUM-KEY**

Find the maximum force and still have the system remain in static equilibrium.

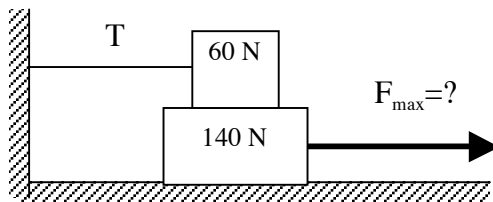
[Note: $\mu_{\text{static}} = .2$ for all surfaces]

[1]



$$F_{\text{max}} = 40 \text{ N}$$

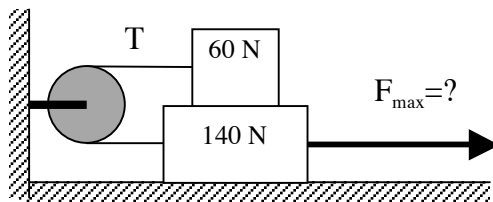
[2]



$$F_{\text{max}} = 52 \text{ N}$$

$$F_{\text{max}} = 12 \text{ N} + 40 \text{ N}$$

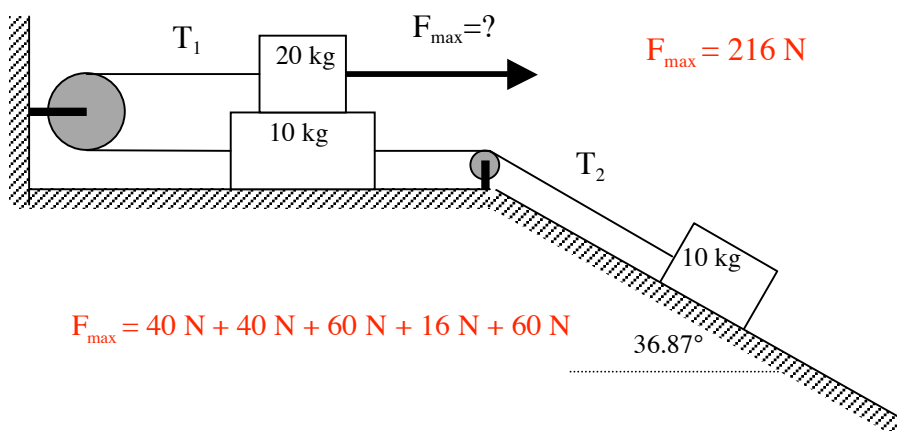
[3]



$$F_{\text{max}} = 64 \text{ N}$$

$$F_{\text{max}} = 12 \text{ N} + 12 \text{ N} + 40 \text{ N}$$

[4]



$$F_{\text{max}} = 216 \text{ N}$$

$$F_{\text{max}} = 40 \text{ N} + 40 \text{ N} + 60 \text{ N} + 16 \text{ N} + 60 \text{ N}$$

 36.87°