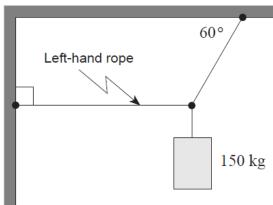
1.

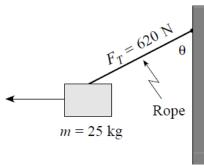
A 150 kg object is suspended from a ceiling and attached to a wall. What is the tension in the left-hand rope?



- A.  $7.4 \times 10^2 \text{ N}$
- B.  $8.5 \times 10^2 \text{ N}$
- C.  $1.3 \times 10^3 \text{ N}$
- D.  $2.5 \times 10^3 \text{ N}$

2.

A  $25~\mathrm{kg}$  block is pulled by a horizontal force. The supporting rope can withstand a maximum tension force of  $620~\mathrm{N}$ .



To what maximum angle,  $\theta$ , can the block be pulled without the rope breaking?