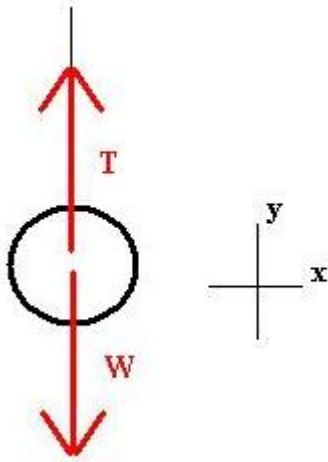


4-3)



No forces in the x-direction.

$$\Sigma_n F_{ny} = ma_y$$

$$T - gm = ma$$

So,

$$T_{MAX} - gm = ma_{MAX}$$

$$a_{MAX} = T_{MAX}/m - g = 75/4.8 - 9.8 = 5.83 \text{ m/s}^2$$