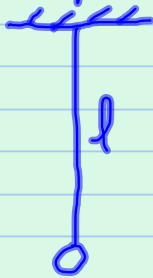


Ex. 13.8 p 407



$$T = 12 \text{ s}$$

$$g = 9.8 \frac{\text{m}}{\text{s}^2}$$

$$T = 2\pi \sqrt{\frac{l}{g}}$$

← roughly ht. of tower

$$g \left( \frac{T}{2\pi} \right)^2 = l$$

$$9.8 \left( \frac{12}{2\pi} \right)^2 = l$$

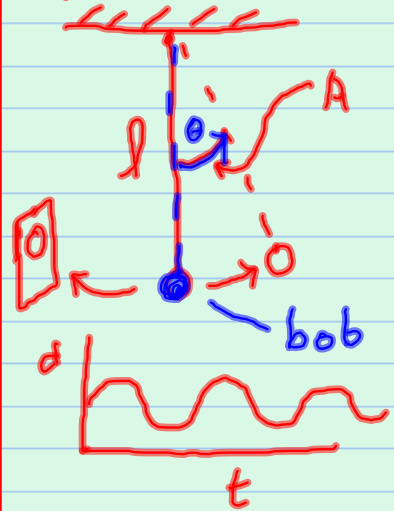
$$\underline{35.8} = l$$

b)  $T = ?$  if  $\frac{l}{2}$

$$T = 2\pi \sqrt{\frac{\frac{35.8}{2}}{9.8}}$$

$$= \underline{8.49 \text{ s}}$$

pendulum



$$T = 2\pi \sqrt{\frac{l}{g}}$$

$$f = \frac{1}{T}$$

power  $\frac{1}{2}$