

$$\begin{aligned} \text{a) } m &= .40 \text{ kg} \\ k &= 160 \text{ N/m} \\ x &= .15 \text{ m} \end{aligned}$$

$$F_s = -k \cdot x$$

$$= -(160 \text{ N/m} \cdot .15 \text{ m})$$

$$F_s = -24 \text{ N}$$

$$\begin{aligned} \text{b) } F_s &= -24 \text{ N} \\ m &= .40 \text{ kg} \end{aligned}$$

$$F = m \cdot a$$

$$-24 \text{ N} = (.40 \text{ kg}) \cdot a$$

$$a = -60 \text{ m/s}^2$$