P #1

Ch 13 - Pg 418

a) $m = .40\ kg$
$k = 160\ N/m$
$x = .15\ m$

$$F_s = -k \cdot x$$

$$= -(160\ N/m)(.15\ m)$$

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

b) $F_s = -24\ N$
$m = .40\ kg$

$$F = m \cdot a$$

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

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