P #1

a)  $m = 6.0$ kg
    $a = 2.0$ m/s$^2$
    $F = ?$

$F_{net} = m \cdot a$
$\quad = (6.0 \text{ kg}) \cdot (2.0 \text{ m/s}^2)$

$$\boxed{F_{net} = 12 \text{ N}}$$

b)  $F_{net} = 12.0$ N
    $m = 4.0$ kg
    $a = ?$

$F_{net} = m \cdot a$

$(12.0 \text{ N}) = (4.0 \text{ kg}) \cdot a$

$$\boxed{a = 3.0 \text{ m/s}^2}$$