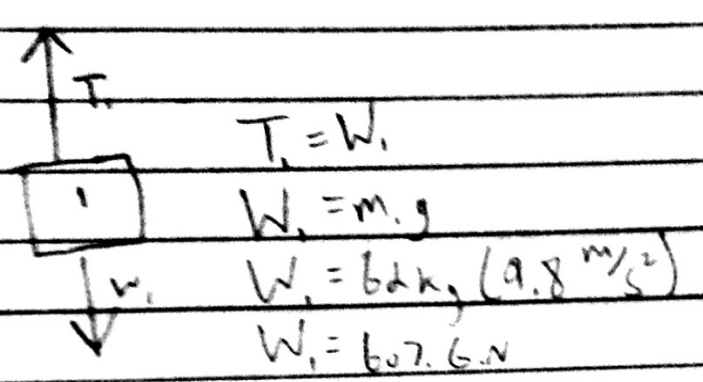
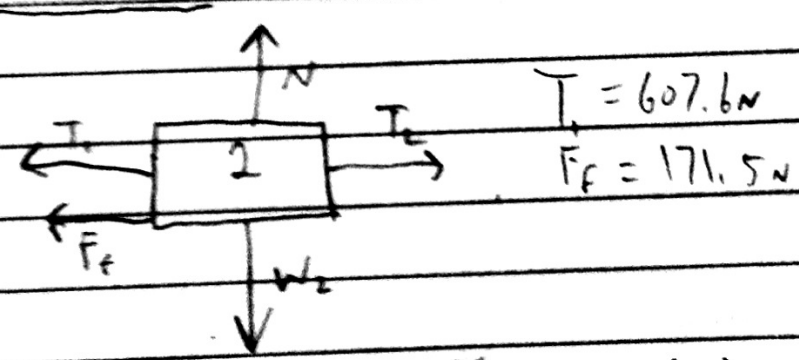


Known	Unknown
$m_1 = 62 \text{ kg}$	$m_3$
$m_2 = 70 \text{ kg}$	$T_1$
$\mu_s = 0.25$	$T_2$
	$F_f$



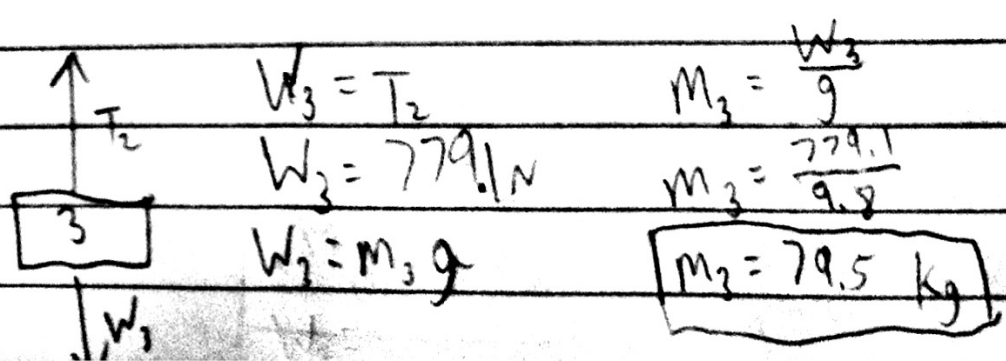
$T_1 = 607.6 \text{ N}$



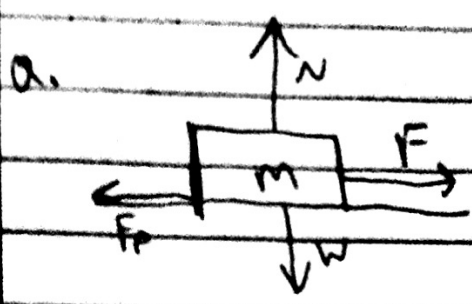
$N = W_2$   
 $W_2 = m_2 g$   
 $W_2 = 70 \text{ kg} (9.8 \text{ m/s}^2)$   
 $W_2 = 686 \text{ N}$   
 $N = 686 \text{ N}$

$F_f = 0.25 (N)$   
 $F_f = 0.25 (686 \text{ N}) = 171.5 \text{ N}$

$T_2 = T_1 + F_f$   
 $T_2 = 779.1 \text{ N}$



$$M = 20 \text{ kg}$$
$$\mu_s = 0.40$$



$$F_f = 0.40(N)$$

$$W = Mg$$
$$W = (20 \text{ kg})(9.8 \text{ m/s}^2)$$

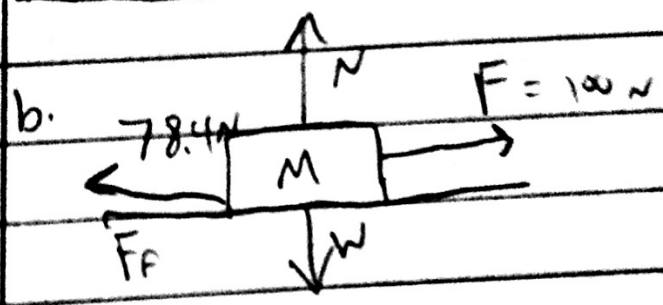
$$W = 196 \text{ N}$$

$$N = 196 \text{ N}$$

$$F_f = 0.40(196 \text{ N})$$

$$F_f = 78.4 \text{ N}$$

$$F > 78.4 \text{ N}$$



$$F = Ma$$

$$F_x = 100 \text{ N} - 78.4 \text{ N}$$

$$F_y = 0$$

$$F_{\text{net}} = 21.6 \text{ N}$$

$$21.6 \text{ N} = (20 \text{ kg})(a)$$

$$a = \frac{21.6 \text{ N}}{20 \text{ kg}}$$

$$a = 1.08 \text{ m/s}^2$$