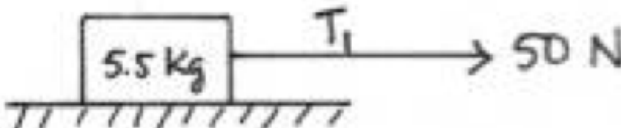
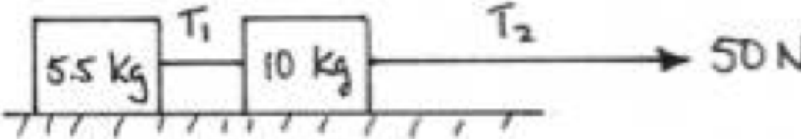
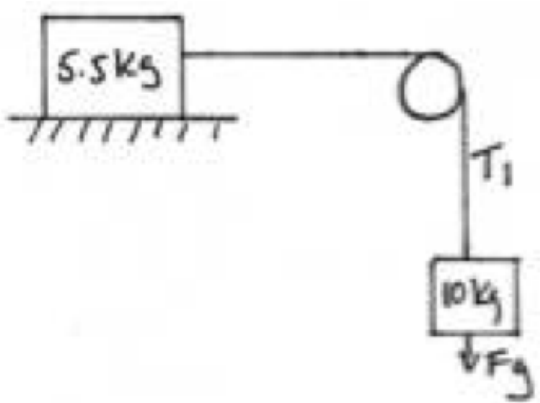
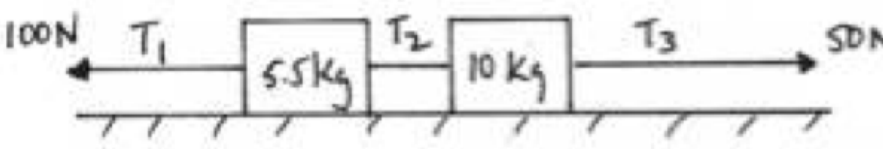
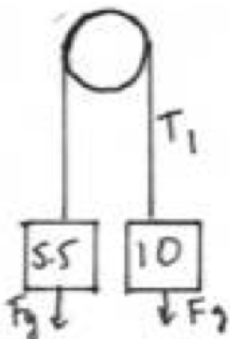


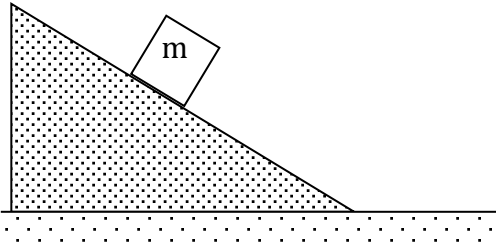
Dynamics: Tension Worksheet (for Note 5)

For each of the following calculate: a) Fnet of the system
 b) Acceleration of the system
 c) Tensions

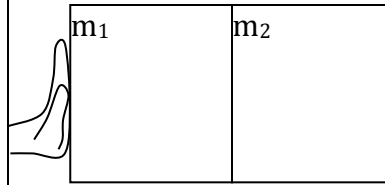
1)		$\mu = 0.3$	(a=34N b=6.15 m/s ² c=50N)
2)		Frictionless	(a=50N b=3.23 m/s ² c=50N)
3)		$\mu = 0.3$	(a=82N b=5.28 m/s ² c=45N)
4)		(difficult) $\mu = 0.2$	(a=19.62N b=1.266 m/s ² T1=100N, T2=82.26N, T3=50N)
5)		Frictionless	(a=44.1N b= 2.845m/s ² c=69.5N)

Physics 12 – Incline Net Force (w/ multiple objects)

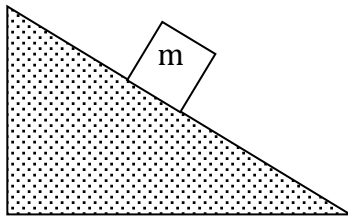
1. Ramp with friction, Block begins at rest.
 $\mu_k=0.25$, $\mu_s=0.30$, $\theta = 20^\circ$
 $m = 2.5 \text{ kg}$ Find a , F_f



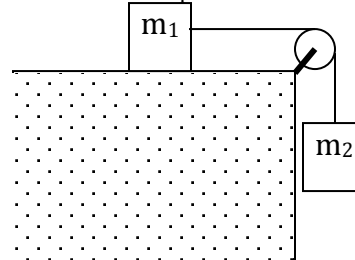
5. Friction on surface, constant $v=1.5 \text{ m/s}$
 $m_1 = 4 \text{ kg}$, $m_2 = 6 \text{ kg}$,
 Force of hand pushing on $m_1 = 50 \text{ N}$.
 Find μ , F_N between the blocks



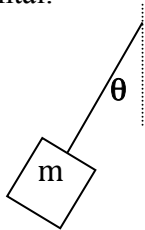
2. Ramp with friction, Block begins at rest.
 $\mu_k=0.40$, $\mu_s=0.50$, $\theta = 20^\circ$
 $m = 2.5 \text{ kg}$ Find a , F_f



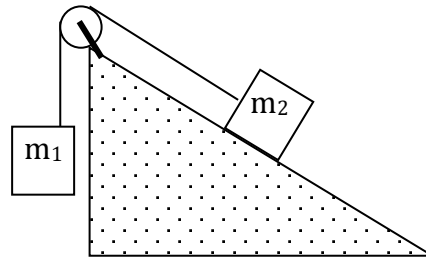
6. Table with friction, Blocks start at rest
 $m_1 = 1.5 \text{ kg}$, $m_2 = 3.0 \text{ kg}$, $\mu_s=0.6$, $\mu_k = 0.4$
 Find a and F_T



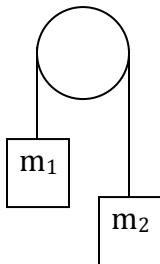
3. Mass pulled by string. Mass is 2.5 kg , $\theta = 20^\circ$
 a is horizontal.
 Find a , F_T



7. Frictionless
 $m_1 = 1.5 \text{ kg}$, $m_2 = 2.5 \text{ kg}$, $\theta = 20^\circ$
 Find a , F_T



4. Frictionless pulley. $m_1 = 2.0 \text{ kg}$, $m_2 = 1.5 \text{ kg}$
 Find a



8. Friction on surface,
 $m_1 = 2.5 \text{ kg}$, $m_2 = 1.5 \text{ kg}$, $\theta = 40^\circ$, $\mu = 0.30$
 Find a , F_T

