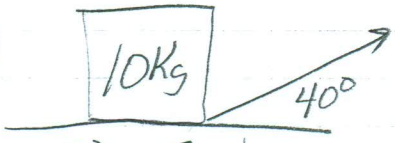
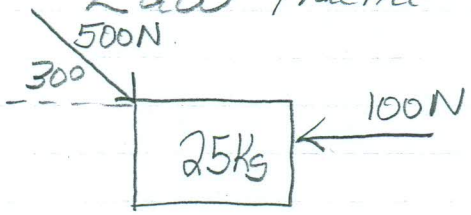
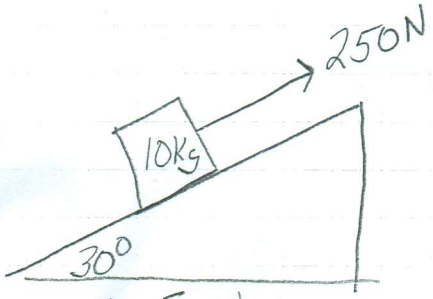
Newton's 2nd Law Practice

1) 

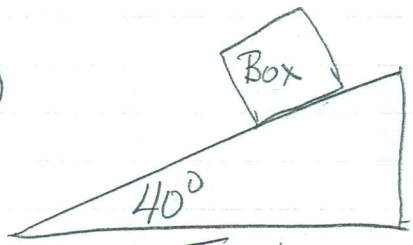
a) Find a
b) if $\mu = .15$, find a

2) 

$\mu = .1$, Find a

3) 

a) Find a
b) if $\mu = .1$, find a

4) 

a) Find a
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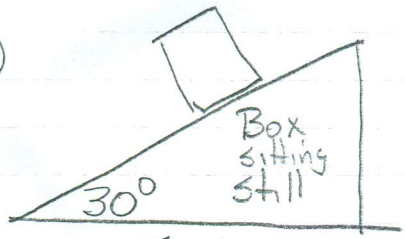
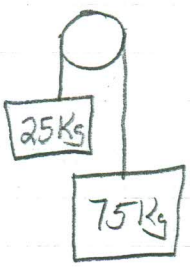
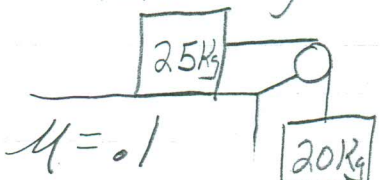
5) 

Find μ

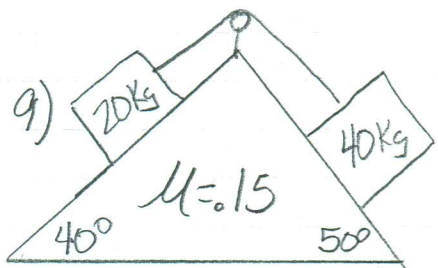
6) A 25Kg box is being pulled up a 35° incline with a constant speed. If $\mu = .1$, Find T in the rope

* Find T & A for the following

7) 

8) 

With and W/O Friction

9) 

With & W/O Friction

10) What is the apparent weight of a person in an elevator if it accelerates up at $1.5 m/s^2$ and down $1.5 m/s^2$ and the persons mass is 80Kg.

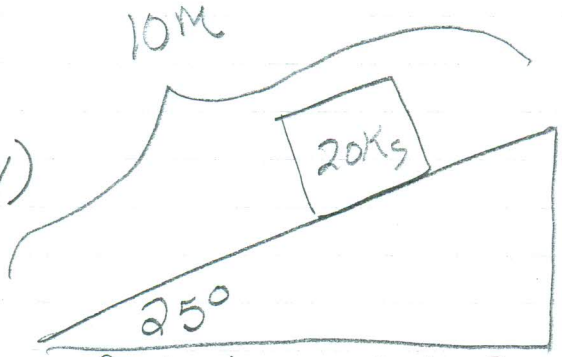
11) A person accelerates a box upward by a rope with a tension of 200 Newtons. The mass of the box is 10Kg, Find a.

12) The Coefficient between a car tire and the road is .75. If the car is travelling at 25 m/s, what distance is required to stop it.

13)

If the speed is constant, Find μ

14)



If the box starts from rest, what is the final velocity? If $\mu = .15$, what is the final velocity

15) The maximum force a rope can withstand is 500 Newtons. Unfortunately a thief wanting to use it weighs 588 Newtons. What must he accelerate downward for it not to break?

16) What is the tension in a rope if a 600 Newton individual climbs up it with a constant speed