Problem #1

In Figure 1, blocks A & B have weights 44N & 22N respectively.

- a) Determine the minimum weight of block C to keep A from sliding if μ_s between A & the table is 0.2
- b) Block C is suddenly lifted of A

What is the acceleration of block A of μ_k between A & the table is 0.15?



Problem #2

The two blocks are not attached to each other.

The coefficient of static friction between the blocks is $\mu_s=0.38$ but the surface beneath the larger block is frictionless.



a) What is the minimum magnitude of

the horizontal force F required to keep the smaller block from slipping down the larger block?

- b) Draw the free body diagrams of m, M and a combined free body diagram of both masses.
- c) Identify action & reaction pairs in your free body diagrams.

Problem #3-8

Text book problem 5.73, 5.64, 5.53, 5.54, 5.55,

MAKE SURE YOU EXPLAIN YOUR STEPS (the physics behind it.) Answers without words and explanations WILL NOT receive full credit.

Explanations are basically what you write so that when you read the problem again you will understand it easily!

Draw free body diagram, component diagram (that is a diagram where every force or its component is along the axes you have chosen) wherever possible