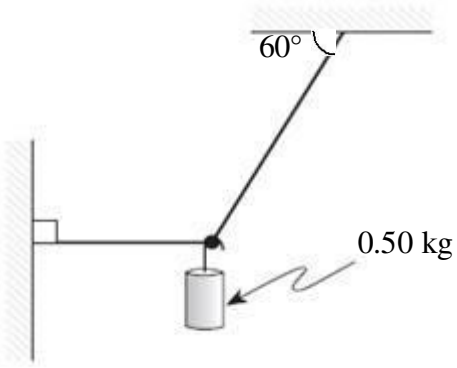
PENANG SANGAM HIGH SCHOOL
YEAR 12 PHYSICS
WEEK 6

1. Which of the following pairs of statements is true about combining uncertainties?

	Subtraction	**Division**
A.	Percentage uncertainties are subtracted	Absolute uncertainties are added
B.	Percentage uncertainties are added	Absolute uncertainties are subtracted
C.	Absolute uncertainties are subtracted	Percentage uncertainties are subtracted
D.	Absolute uncertainties are added	Percentage uncertainties are added

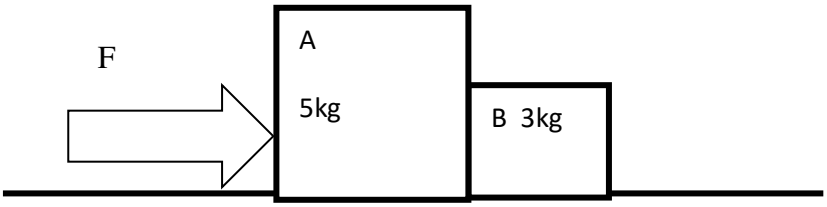
2. A 0.50 kg mass is suspended as shown in the diagram.



If the system is in a state of equilibrium, what is the tension in the horizontal string?

A. 2.5 N
B. 2.9 N
C. 4.2 N
D. 4.9 N

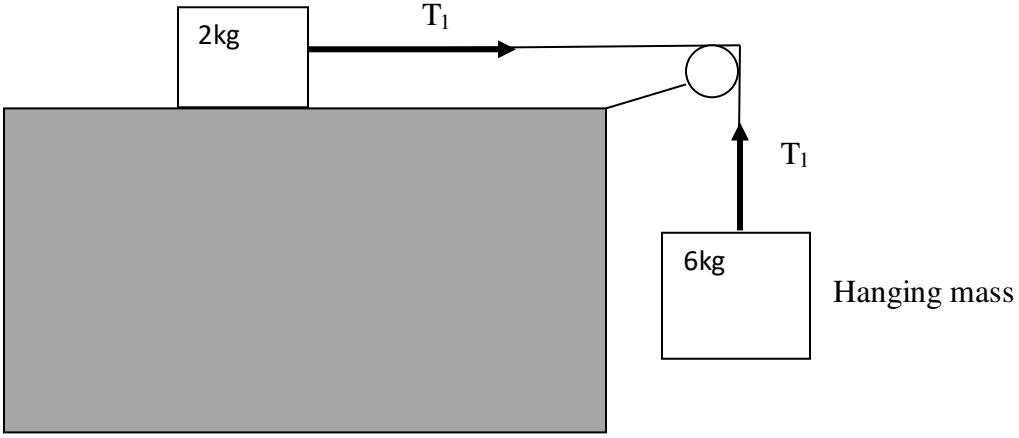
3. For the system below the force mass A exerts on mass B is 12N.



The acceleration of the system in m/s^2 is

A. 1.5 B. 2.4 C. 0.67 D. 4

4. Given below is a system of masses



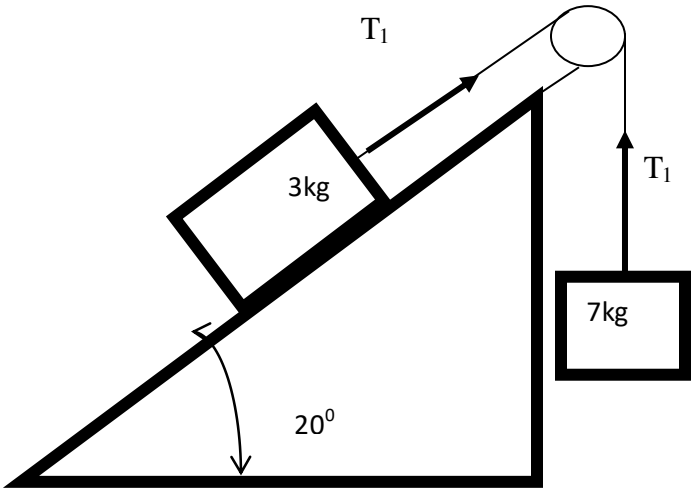
i. Find the acceleration of the system ($F_N = ma$)

ii. Find the tension in the rope (isolate one of the mass then use $F_N = ma$)

iii. Find the distance the 6kg mass moves down in 0.5s if the system was initially at rest (list all information then use equation of motion)

iv. Find the loss in potential energy of the 6kg mass in this time($E_P = mgh$)

5. masses on a incline plane is shown below



i. Find the net force (find mgsinΘ component of the 3kg mass, find weight force of 7kg mass, subtract bigger minus smaller)

ii. Find the acceleration ($F_N = ma$)

iii. Find the tension in the rope (isolate one of the mass then use $F_N = ma$)