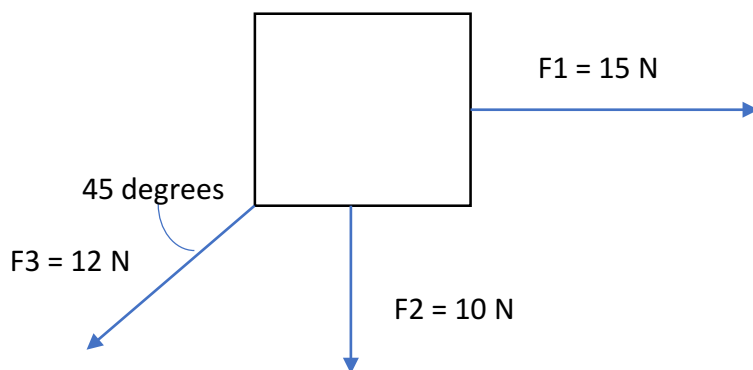
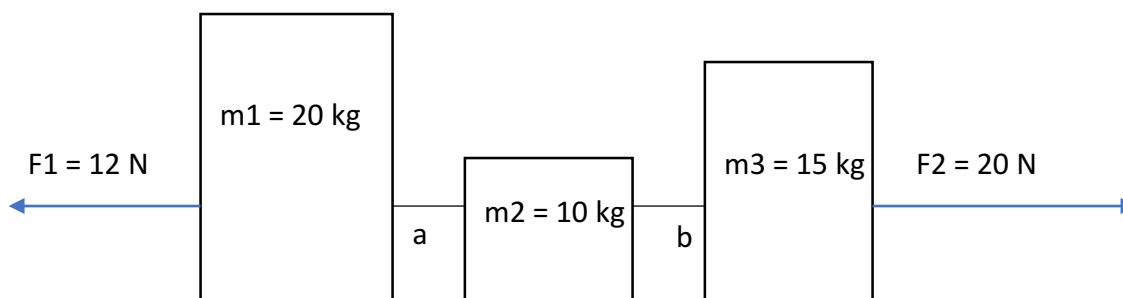


## Physics 111 Session 4

- 1) Draw the free body diagram for a rock that weighs 3kg which is in projectile motion.
- 2) Draw the free body diagram for a car that weighs 1000 kg and is accelerating at  $5 \text{ m/s}^2$ .
- 3) Find the net force acting on the box below (bird's eye view):



- 4) Consider the system below:



- a) find the net force of the boxes
- b) find the acceleration of the boxes
- c) find the magnitude of the force in cable (a) (hint: find the force of box1 acting on box2)