

## **Physics 11 Unit 2 – Worksheet #1 - Fg, mass, units**

Name: \_\_\_\_\_

1. Calculate the weight of a 4 kg jug of milk (in Newtons).
  
  
  
  
  
2. Calculate the force of gravity in Newtons on a 40 kg girl.
  
  
  
  
  
3. The force of gravity on a box is 597 N on the surface of the Earth. Find the mass of the box.
  
  
  
  
  
4.
  - a) 500 grams = \_\_\_\_\_ kg
  - b) 60 grams = \_\_\_\_\_ kg
  - c) 4 kg = \_\_\_\_\_ grams
  - d) 4 grams = \_\_\_\_\_ kg
  
  
  
  
  
5.
  - a) 1.5 pounds = \_\_\_\_\_ kg
  - b) 120 pounds = \_\_\_\_\_ kg

6. If I move a box from the Earth to the moon the \_\_\_\_\_ stays the same but the \_\_\_\_\_ changes.

7. The metric units for mass are \_\_\_\_\_

8. The metric units for force are \_\_\_\_\_

9. The imperial units for force are \_\_\_\_\_

10. The imperial units for mass are \_\_\_\_\_ (not used often)

11. A 4 kg block is sitting on the table. Find the normal force on the block.

12. A 30 N box is sitting on a table. A string is pulling up on the box with a 9 N force. Find the normal force on the box.

13. A 5 kg box is sitting on a table. Bob's hand is pushing down on the box with a 12 N force. Find the normal force on the box.