Student Name _____ Classroom Teacher _____

MASS and WEIGHT Worksheet

Mass = amount of matter

Weight: force of gravity on mass

1. Answer the following questions, using either ***mass*** or ***weight***.

   a. The amount of matter in an object is called its _____.

   b. The force of gravity on an object is called its _____.

   c. If you take a spaceship into space, your _____stays the same.

   d. If you take a spaceship into space, your _____changes.

   e. The force of gravity when one object has a much larger _____ than the other object.

   f. If you double the mass of an object, you double the object's _____.

   g. On Earth you can compare the masses of different objects by comparing their _____.

   h. _____ is measured in grams or kilograms.

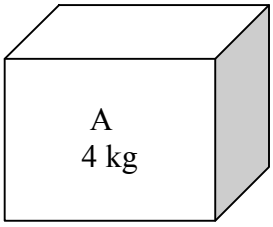
   i. _____is measured in Newtons.

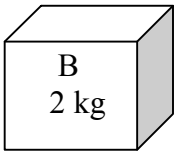
2. If you drop a 50-cent piece (half-dollar) and a 10 cent-piece (a dime) from a tall building…

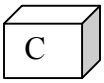
   a. Do the objects have the **same mass**? _____

   b. Will both coins hit the ground at the same time? _____

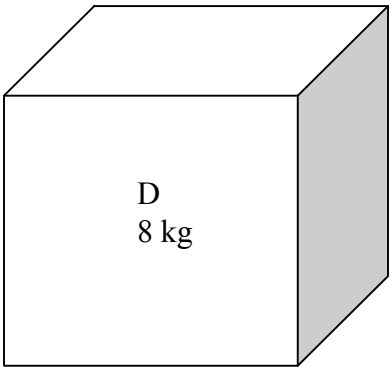
Note: Run your own test with 2 objects of very different mass, and see what happens.







C = 1 kg



The objects are being pushed, not falling.
The 4 objects have different amounts of mass.
The *same amount of force* is used in pushing all 4 objects.

Write the letters of the objects that make each statement true.

Note: more than one letter may be used.

a. _____ will move the farthest distance.

b. _____ will move the least distance.

c. _____ will move twice as far as C.

d. _____ will move half as far as B.

e. _____ will move less far than C.

f. _____ will move farther than B.

What measurement tool is used to measure…

Mass? _____ Newtons?_____