

## Practice Cumulative Quiz

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

### Define:

1. Weight-
2. Volume-
3. Length-
4. Satellite-
5. Inertia-

### Fill in the Blank:

1. \_\_\_\_\_ -When solid surfaces slide over one another
2. When the only force acting on an object is gravity...an object is in \_\_\_\_\_.
3. A \_\_\_\_\_ collision is when momentum is not changed into another form of energy and a \_\_\_\_\_ collision is where some momentum is changed into another form of energy
4. Grams are to mass as meters is to \_\_\_\_\_

5. Graduated cylinders is to volume as three beam balances are to

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**Conversions Solve the following and show your work. Use conversion factors and be sure to include your units. (Show all work for full credit)**

1. How many inches are in a 1.7 kilometers?

2. 2.3g to lbs=

3. 45000mm to mi=

4. 13mi/hr to mi/sec=

**Short Answer (Show all work and answer in complete sentences for full credit)**

1. If I wanted to measure how much matter is in a bottle of soda would my unit be in meters, liters, or grams? Why?

2. Explain an example of Newton's Third Law.

3. Explain an example of Newton's Second Law.

4. What two factors influence friction?

5. I have two objects...both traveling with a velocity of 20mph south. Object 1 is a small ball and object 2 is a large car. Which one has a greater momentum? Why?
6. If I have a force of 50N and a mass of 13kg...what is my acceleration?
7. If I have a force of 90N and a acceleration of  $1.7\text{m/s}^2$ ...what is my mass?
8. Evie accelerates from 0mph to 600m in 4 seconds. Her car has a mass of 2000kg. What is her force?
9. The Bright One jumps with a force of 200N upward. Gravity pulls at The Bright One with a force of 150N downward.
  - A. Is this force balanced or unbalanced?
  - B. What will happen to The Bright One (prove by calculating net force)?

Speed and Acceleration (Show all work and units for full credit)

1. Abbi and Carl hijack a car and manages to travel 156 miles in four hours. They runs out of gas...and pushes it another 50mi before his parents catch him. The whole trip takes five and a half hours.

What was the speed for the first part of his trip?

What was their speed for the second part of the trip?

What was the average speed?

**Conversions: You will not be provided a ladder on this quiz or the final. Do your best :)**

4mg= \_\_\_\_\_g

6g= \_\_\_\_\_mg

140km= \_\_\_\_\_m

Which is bigger a milligram(mg) or a kilogram(kg)? How much bigger?

**Volume and Area (read carefully and show work)**

If my width is 2cm, my height is 20mm, and my length is 2cm, what is my volume?

If my width is 4cm, my height is 60m, and my length is 2cm, what is my area?