Name: _____
Date: _____
Period: _____

Presentation Practice

During Presentations, these are the following math formulas presented by your peers

Speed = distance ÷ time

Velocity = distance ÷ time (with direction)

Acceleration = Change in velocity ÷ time or Acceleration = Force ÷ mass

Force = mass x acceleration

Momentum = mass x velocity or mass x speed

Gravity = $mass_1$ x $mass_2$ ÷ $distance^2$

Weight = mass x acceleration due to gravity ($9.8m/s^2$ on earth)

(This means multiply the mass of two objects then divide that product by the distance between the two objects squared)

Use these formulas to solve the following math problems. In the space provided, show:

The formula you choose to use

The numbers and units you substituted into the formula

Your final answer (you can use a calculator to solve)

Example: speed = distance ÷ time

speed = 10 miles ÷ 4 seconds

speed = 2.5 miles per second

1. How fast is a car going if it travels 100 miles in 25 minutes?

2. What is the velocity of that same car if it is traveling from Windsor Locks to Hartford?

3. If the car in question #1 had a mass of 1500kg, what would its Momentum be?

4. A horse goes from 2m/s to 15m/s in 3 seconds, what is its acceleration?

More on the back

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Gravity = $mass_1$ x $mass_2$ ÷ $distance^2$

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5. A bowling ball is thrown so that it accelerates at 15m/s^2. If the bowling ball has a mass of 7kg, with what force does it hit the pins?

6. Two objects are floating in space 3 meters apart. The first object has a mass of 50kg. The second 20kg. What is the Force of Gravity between these two objects?

7. Now, for the two objects in Question #6, let's move them until they are twice as far apart (6meters) . What is the new Force of Gravity between them?

8. The moon has an acceleration due to gravity of 1.6m/s2. What would be the weight of a person if they have a mass of 70kg?