**Force of gravity Calculations notes**

Gravity is a force that acts to pull objects towards the centre of the earth

As the mass of an object increases the force of gravity also increases

From the results of our lab we can see that there is approximately \_\_\_\_\_\_\_\_\_ of gravitational force per kg of mass

* After careful measurement, scientists have determined the exact value of the force of gravity to be \_\_\_\_\_\_\_\_\_\_\_
* This value changes slightly depending on where you are on the earth

Example. What is the force of gravity on a 2kg mass?

How many Newtons of gravitational force would act on the following masses:

 a) 5kg b) 20kg

 c)10kg d) 30kg

Example. What is the force of gravity on a 200g object?

Step 1. Convert to grams to kg

Step 2. Multiply kilograms by 9.8

How many Newtons of force would act on the following mass? (you may convert to kilograms first)

1. 100g b) 300g

d) 350g e) 10g

Example: The force of gravity on an object is 250N. What is its mass?

What is the mass of an object with a force of gravity of 280N