

# Weight, mass, and the stuff of gravity

Grade 6 Physics

Weight varies with the strength of gravitational force. Imagine your older brother weighs 47 kg. Calculate his weight on different places in the solar system. Use the equation  $w = mg$  to fill in the table below.

Write only one digit decimals.  
For example 4.8 or 11.2 or 500.1  
Don't write 4.800172638



Location	Earth	Moon	Mars	Jupiter
Mass (kg)	47			
gravity (g)	9.8	1.7	4	25
Weight (N)				

Read and answer the questions.

1. Weight is the \_\_\_\_\_ of gravity pulling down on you.
2. Weight is measured in \_\_\_\_\_ (N).
3. Mass is the amount of matter in an object, and it can be measured in kilograms (\_\_\_\_\_)
4. Will you weigh more on Jupiter or the moon? \_\_\_\_\_
5. Objects exert more gravity when they are near or far from each other? \_\_\_\_\_