

# Mass vs Weight



My **WEIGHT** on Earth is around 560N



My **WEIGHT** on the moon is around 90N



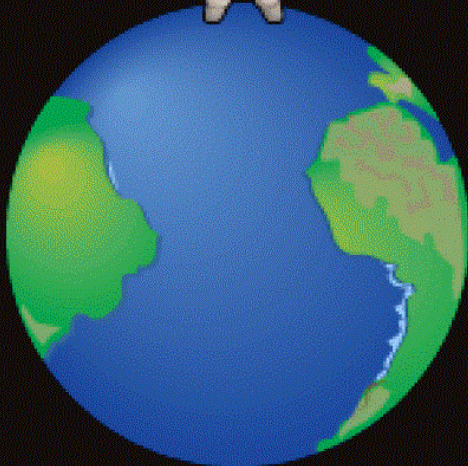
My **MASS** is always 56kg!!

$$\text{Gravity} = \frac{\text{Weight (N)}}{\text{Mass (kg)}}$$

$$\text{Earth} = \frac{560 \text{ N}}{56 \text{ kg}} = 10 \text{ N/kg}$$

$$\text{Moon} = \frac{90 \text{ N}}{56 \text{ kg}} = 1.6 \text{ N/kg}$$

Mass = 120 kg  
Weight = 1200 N



Earth

Mass = 120 kg  
Weight = 200 N



Mass = 120 kg  
Weight = 200 N

Moon

Mass = 120 kg  
Weight = 207 N



Mass = 120 kg  
Weight = 207 N

Mars

- Work out the gravity on Earth, Moon and Mars
- Determine which planet has the greatest gravity? Explain your answer.