

Background

Gravity is a universal, natural force that attracts objects to each other. Gravity is the pull toward the center of an object; let's say, of a planet or a moon. When you weigh yourself, you are measuring the amount of gravitational attraction exerted on you by Earth. The Moon has a weaker gravitational attraction than Earth. In fact, the Moon's gravity is only 1/6 of Earth's gravity. So, you would weigh less on the Moon. How much would you weigh on the Moon and on the other planets?

Procedure

1. Write your weight (or an estimate) here:
2. For a different planet, multiply your weight by the number given in the "New" Weight Chart.

Example for the Moon - for a person weighing 60 pounds on Earth:

$$60 \times 1/6 = 10$$

A 60 pound person would weight 10 pounds on the Moon!

3. Follow the example and fill in the blanks in the "New" Weight Chart. Show your work.

"New" Weight Chart

Planet	Multiply your Earth weight by:	Your "new" weight
Mercury	0.4	
Venus	0.9	
Earth	1	
Moon	0.17	
Mars	0.4	
Jupiter	2.5	
Saturn	1.1	
Uranus	0.8	
Neptune	1.2	
Pluto	0.01	
Sun	28	