

# Calculate Your Weight on Other Worlds



Mercury is the smallest planet, and the planet closest to the sun.  
The gravity of Mercury is 38% of Earth's gravity.  
To calculate your weight on Mercury, multiply your weight by 0.38.

$$\frac{\text{_____}}{\text{(Your Weight on Earth)}} \times \frac{\text{_____}}{\text{(units - lbs or kg)}} = \frac{\text{_____}}{\text{(Your weight on Mercury)}} \frac{\text{_____}}{\text{(units - lbs or kg)}}$$

(Multiply by)



Venus is known as the "Cloudy Planet" because it is covered with thick, yellow clouds.  
The gravity of Venus is 90% of Earth's gravity.  
To calculate your weight on Venus, multiply your weight by 0.9.

$$\frac{\text{_____}}{\text{(Your Weight on Earth)}} \times \frac{\text{_____}}{\text{(units - lbs or kg)}} = \frac{\text{_____}}{\text{(Your weight on Venus)}} \frac{\text{_____}}{\text{(units - lbs or kg)}}$$

(Multiply by)



$$\frac{\text{_____}}{\text{(Your weight on Earth)}} \times \frac{\text{_____}}{\text{(units - lbs or kg)}} = \frac{\text{_____}}{\text{(Your weight on the Moon)}} \frac{\text{_____}}{\text{(units - lbs or kg)}}$$

(Multiply by)



Mars is known as the "Red Planet" because the soil is filled with orange-red particles.  
The gravity of Mars is 38% of Earth's gravity.  
To calculate your weight on Mars, multiply your weight by 0.38.

$$\frac{\text{_____}}{\text{(Your Weight on Earth)}} \times \frac{\text{_____}}{\text{(units - lbs or kg)}} = \frac{\text{_____}}{\text{(Your weight on Mars)}} \frac{\text{_____}}{\text{(units - lbs or kg)}}$$

(Multiply by)



Jupiter has more moons than any other planet. So far, scientists have discovered 63!  
The gravity of Jupiter is 234% of Earth's gravity.  
To calculate your weight on Jupiter, multiply your weight by 2.34.

$$\frac{\text{_____}}{\text{(Your Weight on Earth)}} \times \frac{\text{_____}}{\text{(units - lbs or kg)}} = \frac{\text{_____}}{\text{(Your weight on Jupiter)}} \frac{\text{_____}}{\text{(units - lbs or kg)}}$$

(Multiply by)



Saturn is known as the “Ringed Planet” because it has colorful rings made of rock and ice. The gravity of Saturn is 108% of Earth's gravity. To calculate your weight on Saturn, multiply your weight by 1.08.

$$\frac{\text{_____}}{\text{(Your Weight on Earth)}} \frac{\text{_____}}{\text{(units - lbs or kg)}} \times \frac{\text{_____}}{\text{(Multiply by)}} = \frac{\text{_____}}{\text{(Your weight on Saturn)}} \frac{\text{_____}}{\text{(units - lbs or kg)}}$$



Uranus spins sideways. It's north pole and south pole are on the sides. The gravity of Uranus is 80% of Earth's gravity. To calculate your weight on Uranus, multiply your weight by 0.80.

$$\frac{\text{_____}}{\text{(Your Weight on Earth)}} \frac{\text{_____}}{\text{(units - lbs or kg)}} \times \frac{\text{_____}}{\text{(Multiply by)}} = \frac{\text{_____}}{\text{(Your weight on Uranus)}} \frac{\text{_____}}{\text{(units - lbs or kg)}}$$



Neptune is a blue planet with extremely strong winds.



## ~ PREVIEW ~

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\_\_\_\_\_ (units - lbs or kg)

lanet.”



The gravity of Pluto is .05% of Earth's gravity. To calculate your weight on Pluto, multiply your weight by 0.05.

$$\frac{\text{_____}}{\text{(Your Weight on Earth)}} \frac{\text{_____}}{\text{(units - lbs or kg)}} \times \frac{\text{_____}}{\text{(Multiply by)}} = \frac{\text{_____}}{\text{(Your weight on Pluto)}} \frac{\text{_____}}{\text{(units - lbs or kg)}}$$

How much more would you weigh on Jupiter than Earth? Show your work.

answer: \_\_\_\_\_

How much less would you weigh on Pluto than Earth? Show your work.

answer: \_\_\_\_\_

Would you weigh more on the Earth's moon, or on Mercury?

answer: \_\_\_\_\_