

Name: \_\_\_\_\_

## HOW MUCH DO YOU WEIGH ON MARS?

(MULTIPLYING with DECIMALS)

I WEIGH \_\_\_\_\_ LBS. (POUNDS) ON EARTH.

\*To find out how much you weigh on a different planet you must know how strong the gravitational pull of that planet is.

\*The larger the mass of the planet, the stronger the gravitational pull.

\*The stronger the gravitational pull the more you will weigh.

\*Scientists have calculated the gravitational factors for all the planets. These are represented by the decimals as follows:

1. Mercury = .38

2. Venus = .90

3. Mars = .38

4. Jupiter= 2.7

5. Saturn= 1.2

6. Uranus= .93

7. Neptune= 1.2

8. Pluto= .03

## 1. ESTIMATE YOUR WEIGHT ON EACH PLANET

Make an educated guess of your weight on each planet.

Take into consideration these facts:

.25 X a number = 1/4 of the number

.33 X a number = 1/3 of the number

.50 X a number = 1/2 of the number

.75 X a number = 3/4 of the number

1.0 X a number = The number

<b>Planet</b>	<b>Gravitational Factor</b>	<b>Estimated Weight</b>
1. Mercury		
2. Venus		
3. Mars		
4. Jupiter		
5. Saturn		
6. Uranus		
7. Neptune		
8. Pluto		

## 2.FIND YOUR ACTUAL WEIGHT ON EACH PLANET

To find your actual weight on the other planets you must multiply your earth weight by the decimal (gravitational factor) for the planet. Use calculators if you want to...

<b>Planet</b>	<b>Actual weight</b>	<b>Gravitational factor</b>	<b>Your weight on Planet</b>
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

From your findings which planet do you think has the greatest mass?

Which has the smallest?

If you had to live on a different planet which one would it be? why?