

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

### MASS AND WEIGHT

1. A man has a mass of 100 kg. How many pounds is he? (Hint Multiply by 2.2) \_\_\_\_\_ POUNDS

2. Complete the table below to show how much **this same man from 1 above** will weigh on the different planets in our Solar System and on the Moon. (**DO NOT WRITE THE UNITS again. They are already in the heading**)

Answers are to one decimal place where applicable.

PLANET	ACCELERATION DUE TO GRAVITY (m/s <sup>2</sup> )	WEIGHT (N)
Mercury	3.6	
Venus	8.9	
Earth	9.8	
Mars	3.8	
Jupiter	26	
Saturn	11.1	
Uranus	10.7	
Neptune	14.1	
Earth's Moon	1.6	

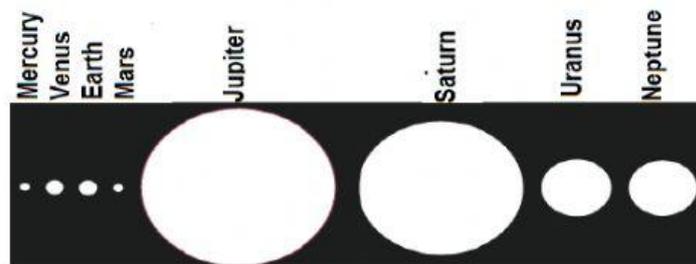
3. On which two planets would you weigh the least? \_\_\_\_\_ and \_\_\_\_\_

4. On which two planets would you weigh the most? \_\_\_\_\_ and \_\_\_\_\_

5. Why would you weigh the least of all on the Moon?

I am on a diet.    The Moon is smaller than Earth.    Earth is smaller than the Moon.    Earth is closer to the Sun.

6. Look at the relative sizes of the planets below.



What do you notice about the size of the body and its acceleration due to gravity?

