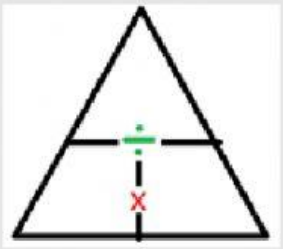
NAME:_____ NAME:_____

WEIGHT AND MASS CALCULATIONS

Mass can be used to calculate weight using the following equation:

WEIGHT = MASS X ACCELERATION DUE TO GRAVITY

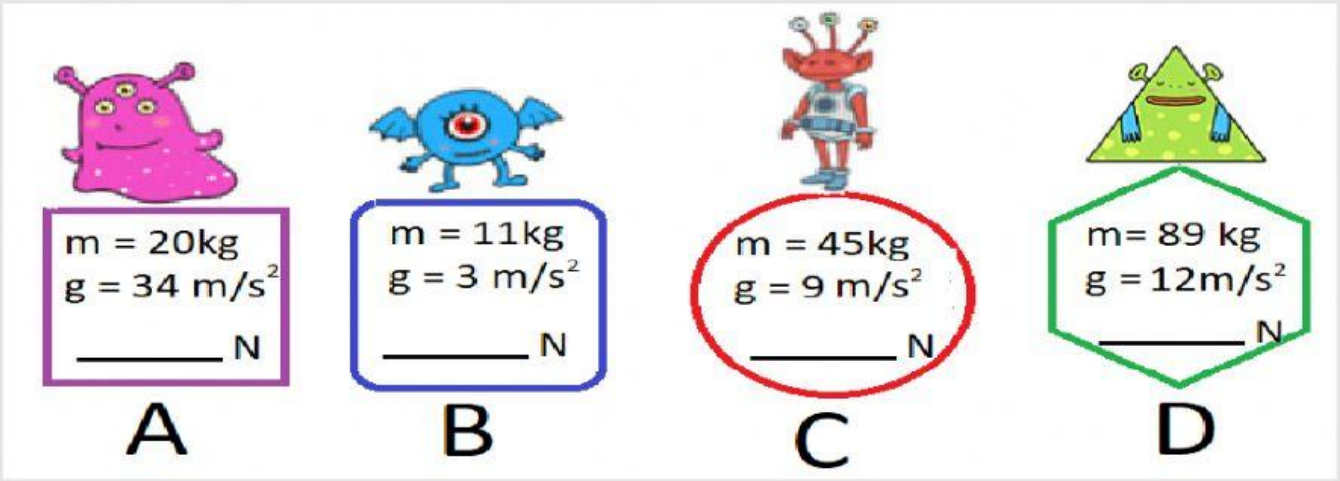
W = m x *g*



The unit of measurement for Weight is N (Newton), for mass it is kg and acceleration due to gravity is ms^{-2}.

Complete the triangle to the right using W, m and *g*.
(Remember to put in the equation, plug in the numbers, then the answer with units.)

Answers to I decimal place where applicable.



1a. Calculate the weight of a man of 250kg on planet Zinkle where the gravity is 67ms^{-2}.

Weight = _____ X _____

= _____ kg x _____ ms^{-2}

= _____ N

b. Calculate the weight of a man of 345 kg on planet Dorfler where the gravity is 4.2ms^{-2}.

Weight = _____ X _____

= _____ kg x _____ ms^{-2}

= _____ N

c. Calculate the weight of a man of on a moon which has a gravitational pull of 19.34 ms^{-2} if his mass is 56kg.

Weight = _____ X _____

= _____ kg x _____ ms^{-2}

= _____ N