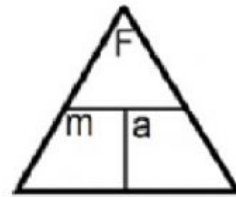


Force Calculations

If your answer is not a whole number, use 2 decimals. No commas in your answers.

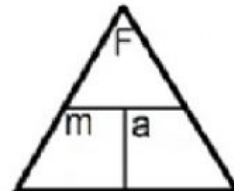
1. A 40-kg baseball is accelerated 600 m/s^2 by what force?

Answer Units
 $\text{kg m/s}^2 \text{ N}$



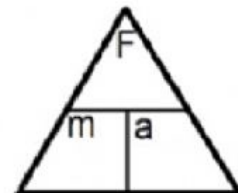
2. The acceleration of gravity is 9.8 m/s^2 on the earth, an object has a mass of 700 kg what is its weight (remember weight is equal to the force of gravity).

Answer Units
 $\text{kg m/s}^2 \text{ N}$



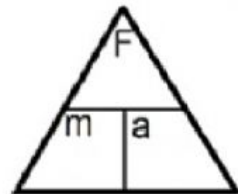
3. The weight of an object on a distant planet is 600 N , and it mass is 294.56 kg what is the acceleration of gravity on that planet.

Answer Units
 $\text{kg m/s}^2 \text{ N}$



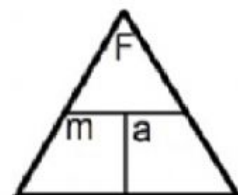
4. A weightlifter raises a 500 kg barbell with an acceleration of 3 m/s^2 . How much force does the weightlifter use to raise the barbell?

Answer Units
 $\text{kg m/s}^2 \text{ N}$



5. If a 50 kg -water rocket takes off with a force of 250 N , what is its acceleration?

Answer Units
 $\text{kg m/s}^2 \text{ N}$



6. A dancer lifts his partner above his head with an acceleration of 3 m/s^2 . The dancer exerts a force of 175 N . What is the mass of his partner?

Answer Units
 $\text{kg m/s}^2 \text{ N}$

