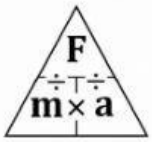
Newton's 2 Law Calculations



No space between answer and unit If answer is squared, use a regular 2.

1. With **what force** will a car hit a telephone pole if the car has a mass of 4,000 kg and an acceleration of 2 m/s^2?
   a. Mass =
   b. Acceleration =
   c. Answer with unit =

2. **What force** would be needed to make a 5 kg skateboard accelerate down a hill with an acceleration of 3 m/s^2?
   a. Mass =
   b. Acceleration =
   c. Answer with unit =

3. **What would be the mass** of a vehicle if it is accelerating at a rate of 5 m/s^2 and hits a parked car with a force of 15,000N?
   a. Force =
   b. Acceleration =
   c. Answer with unit =

4. **What is the acceleration** of a football with a mass of 0.40 kg and hits the receiver's hands with a force of 25 N?
   a. Force =
   b. Mass =
   c. Answer with unit =

5. How much does a refrigerator **weigh** if it has a mass of 131kg? (Hint: you need to recall the acceleration due to gravity)
   a. Mass =
   b. Acceleration =
   c. Answer with unit =

6. **What would be the mass** of an asteroid falling from the sky if it hits the ground with a force of 147N? (hint: think about the acceleration all falling objects have)
   a. Force =
   b. Acceleration =
   c. Answer with unit =

7. **What is the acceleration** of the stack of books below if the total mass of the books is 1.5 kg? (Hint: you will need to calculate the NET Force)
   a. Force =
   b. Mass =
   c. Answer with unit =



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