SCIENCE

Newton's 2nd Law Homework #1

For all problems: **Show the formula & your work.   Circle & label your answer.**

Newton's 2nd Law: **Force (F) = Mass (M) x Acceleration (A)**

The label (units) for **Force** are: kg*m/sec/sec which are called **Newtons (N)**

1. I have a ball with a mass of 5 kg. I roll it down a ramp and it gains an acceleration of 10 meters/sec/sec. What force does it have?

2. I have a ball with a mass of 2 kg. I drop it and it gains an acceleration of 10 meters/sec/sec. What force does it have?

3. Which hits with more force? **THERE ARE TWO PARTS TO THIS PROBLEM.**

- a 2,000 kg elephant accelerating at 0.5 meters/sec/sec

or

- a 5 kg sack of potatoes fired from a cannon at an acceleration of 200 meters/sec/sec