

Part 2: Fill in the blank.

Newton's first law of motion is also known as the LAW OF _____.

Newton's first law says that an object that IS NOT MOVING, or is at _____, will stay at _____, **AND** an object that IS MOVING will keep moving with constant _____, which means at the same _____ and in the same _____, **UNLESS** an _____ force acts on that object.

Newton's second law of motion is also known as _____. Newton's second law says that when an _____ force is applied to a _____, it causes it to _____. The greater the force that is applied, the _____ the acceleration. The lesser the force that is applied, the _____ the acceleration. If the same force is applied to an object with a large mass, it will have a _____ acceleration. If the same force is applied to an object with a small mass, it will have _____ acceleration.

The equation that is used to solve second law problems is **$F = ma$** .

What do each of the variables mean?

$F =$ _____ $m =$ _____ $a =$ _____

What UNIT of measurement must be used with each variable?

$F =$ _____ $m =$ _____ $a =$ _____

Newton's third law says that every time there is an _____ force, there is also a _____ force that is _____ in size and acts in the _____ direction. Newton's third law states that forces must ALWAYS occur in _____.

Listed below are ACTION forces. Tell the REACTION force.

- Your bottom pushing on your desk seat _____
- A bat hitting a baseball _____
- Your finger pressing on your phone screen while texting _____