NEWTON'S LAWS OF MOTION

Recall your lesson on Newton's laws by identifying the missing words or phrases in the given items below. You might want to visit http://www.physicsclassroom.com/Class/newtlaws/ to refresh your memory.

I. NEWTON'S FIRST LAW OF MOTION

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

2. Newton's first law states that an object that is (a)_____will stay at (b)_____, and an object that (c)_____will keep moving with constant (d)_____, which means at the same (e)_____ and in the same (f)_____ unless an (g)_____ force acts on that object.

3. What is inertia?
   _____
   _____

4. What property of an object determines how much inertia it has?

5. Which of the following has more inertia?
   a. Bowling ball or Tennis ball
   b. Hammer or Feather

II. NEWTON'S SECOND LAW OF MOTION

6. Newton's second law of motion is also known as the law of _____.

7. Newton's second law says that when a (a) _____ force is applied to an object it causes it to (b)_____.

8. The greater the force that is applied, the _____ the acceleration.

9. The lesser the force that is applied, the _____ the acceleration.

10. The equation that is used to solve second law problems is **F = ma**.
    a. What does each of the variables mean?
       F = _____
       m = _____
       a = _____

    b. What unit of measurement must be used with each variable?
       F = _____
       m = _____
       a = _____

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III. NEWTON'S THIRD LAW OF MOTION

11. Newton's third law of motion is also known as the law of _____.

12. Newton's third law states that for every _____, there is an _____ but _____ force of _____.

13. Newton's third law states that forces must always occur in _____.

14. What will be the reaction force in each of the following action forces?
    a. Your bottom pushing on your desk seat
    b. A bat hitting a baseball
    c. Your finger pressing on your phone screen while texting

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