

Force Part 4

Choose the correct answer.

1. Which of the following explains Newton's third law of motion?



- ☐ Force = mass x acceleration
- ☐ No change in motion can happen without an unbalanced force.
- ☐ Force always acts in pairs.

2. An object at rest will remain at rest, unless acted upon by _____ force.



- ☐ a balanced
- ☐ an unbalanced

3. _____ is produced when a force acts on a body of mass. The greater the mass of an object, the greater the amount of force needed to move the object.



- ☐ Acceleration
- ☐ Motion

4. A girl kicking a soccer ball is an example of _____.

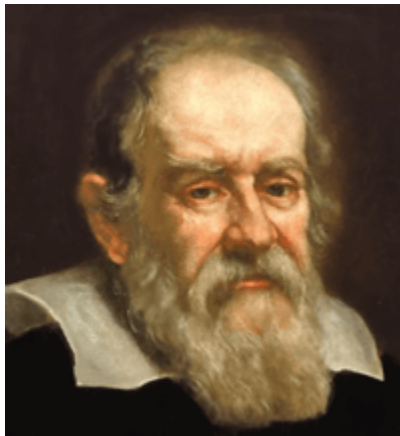


- ☐ balanced forces
- ☐ an unbalanced force

5. Which of the following scientists developed the three laws of motion?

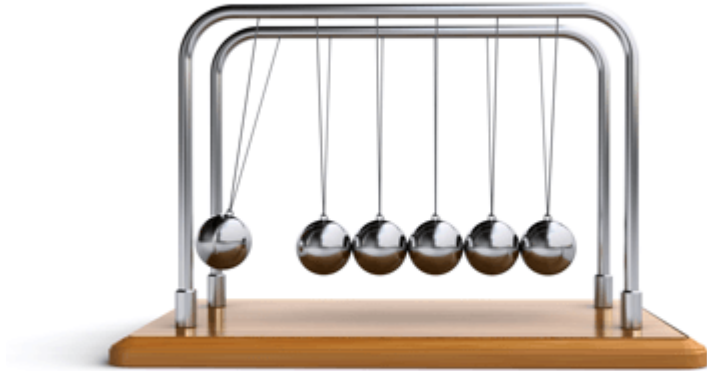


Isaac Newton



Galileo

6. For every action, there is an equal and _____ reaction.



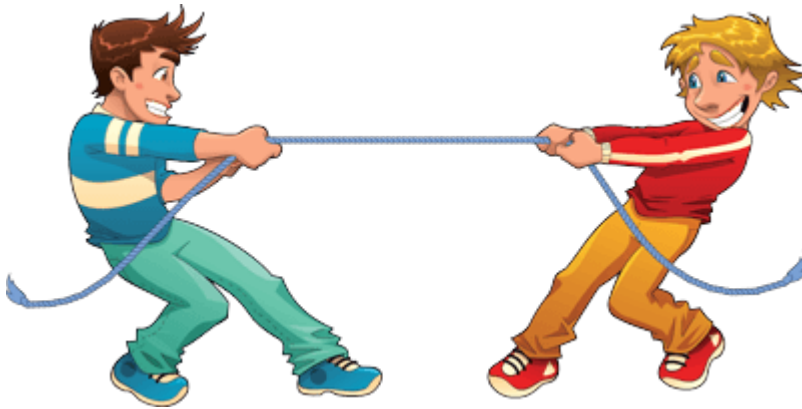
- ☐ different
- ☐ opposite

7. An object at rest will remain at rest, unless acted upon by an unbalanced force. An object in motion continues to be in motion with the same speed, and in the same direction, unless acted upon by an unbalanced force. This is Newton's first law of motion, also called _____.

- ☐ the law of inertia
- ☐ the law of acceleration

State whether the following statement is true or false.

8. Balanced forces are equal in size, do not cause a change in motion, and act in opposite directions.



- ☐ True
- ☐ False

Choose the correct answer.

9. Which of the following pictures is an example of unbalanced forces?



10. These books on a scale are an example of _____.



- ☐ balanced forces
- ☐ an unbalanced force

11. The pushing of a door on both sides with the same amount of force is an example of _____.



- ☐ balanced forces
- ☐ an unbalanced force

12. Which of the following is Newton's first law of motion?



- ☐ law of acceleration
- ☐ law of inertia

13. Which of the following is Newton's second law of motion?



- ☐ law of acceleration
- ☐ law of inertia

14. Which one of the Newton's laws is shown in the following picture?



- ☐ law of inertia
- ☐ law of acceleration

15. Which of the following is a definition of velocity?



- ☐ Velocity is the rate of motion in a specific direction.
- ☐ Velocity is the rate of motion in any unspecified direction.