NAME : _____

CLASS : _____

DATE : _____

7.1.2 Newton's First Law

20 Questions

1. Newton's first law is also called the Law of ...

☐ a) Friction ☐ b) Inertia

☐ c) Unbalanced forces ☐ d) Newtons

2. An object in motion tends to stay in motion unless an ___ force acts on it.

☐ a) unbalanced ☐ b) balanced

3. The tendency of an object to resist a change in motion is...

☐ a) inertia ☐ b) kinetic energy

☐ c) vector ☐ d) net force

4. Objects with greater _____ also have greater inertia.

☐ a) speed ☐ b) mass

☐ c) temperature ☐ d) friction

5. Newton's first law applies

☐ a) to both moving and nonmoving objects ☐ b) only to moving objects

☐ c) only to objects that are not moving

6. Because of inertia, a moving object will keep _____ unless acted on by an unbalanced force.

- ☐ a) at rest
- ☐ b) moving
- ☐ c) in one spot
- ☐ d) inertia

7. Because of inertia, a resting object will remain at _____.

- ☐ a) rest
- ☐ b) a constant speed
- ☐ c) school
- ☐ d) inertia

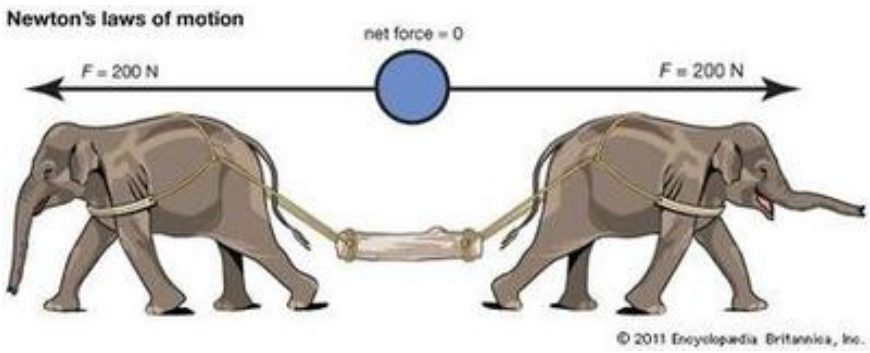
8. What kind(s) of objects have inertia?

- ☐ a) all objects with mass
- ☐ b) only objects at rest
- ☐ c) only objects in motion
- ☐ d) only objects whose motion is being changed

9. You push on a car and it does not move. What is true about the inertia?

- ☐ a) The inertia is changing
- ☐ b) The inertia of the car is too great
- ☐ c) The inertia of the person is equal to the car
- ☐ d) There is not inertia because of no movement

10. Why is the net force 0 in the image?



- ☐ a) Because the elephants are the same size
- ☐ b) Because they are both pulling the same amount of force in opposite directions
- ☐ c) Because they are elephants
- ☐ d) Because they are pulling away from each other.

11. Find the net force: 15 N to the right, and another 15 N to the right.

- ☐ a) 0 N Right
- ☐ b) 0 N Left
- ☐ c) 30 N Left
- ☐ d) 30 N Right

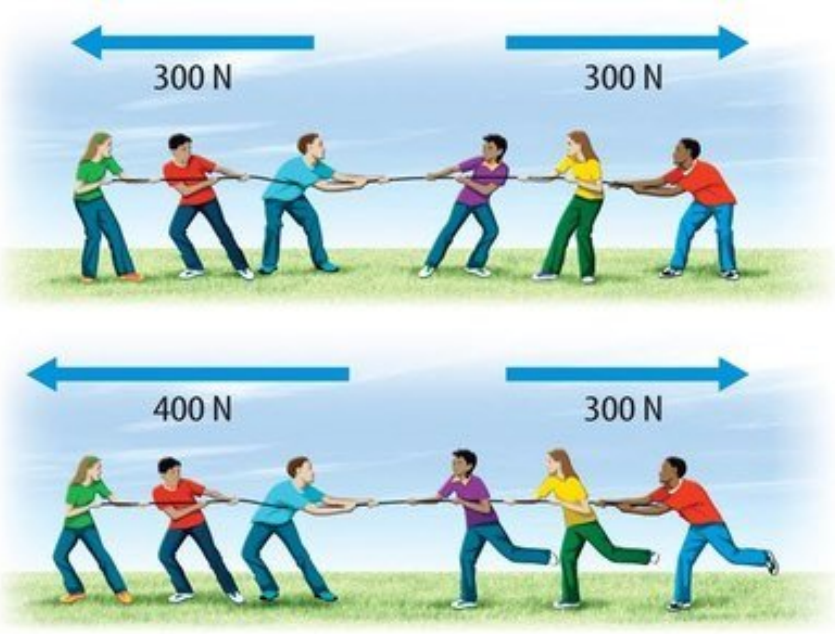
12. 8 N to the left , and 4 N to the right. Find the net force. Is this balanced?

- ☐ a) 12 N Right No
- ☐ b) 4 N Left No
- ☐ c) 12 N Right Yes
- ☐ d) 4 N Left Yes

13. You and your friend, are playing tug of war. Your friend pulls with a force of 55 N to the right. You pull with a force of 65 N to the left. What is the net force on the rope?

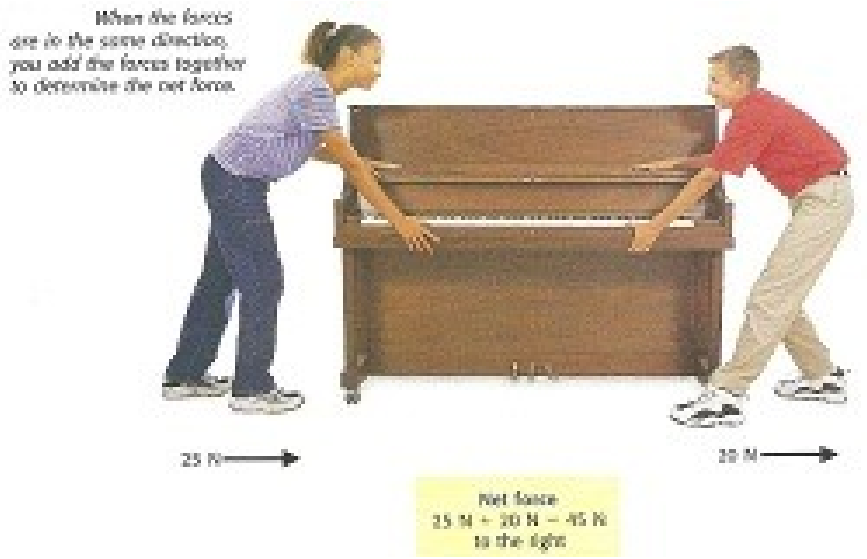
- ☐ a) 10 N, to the left
- ☐ b) 20 N
- ☐ c) 10 N, to the left
- ☐ d) 10 N, to the right

14. Which one is balanced?



- ☐ a) top
- ☐ b) bottom
- ☐ c) both

15. What is the net force?



- ☐ a) 5 N
- ☐ b) 45 N to the left
- ☐ c) 5 N to the right
- ☐ d) 45 N to the right

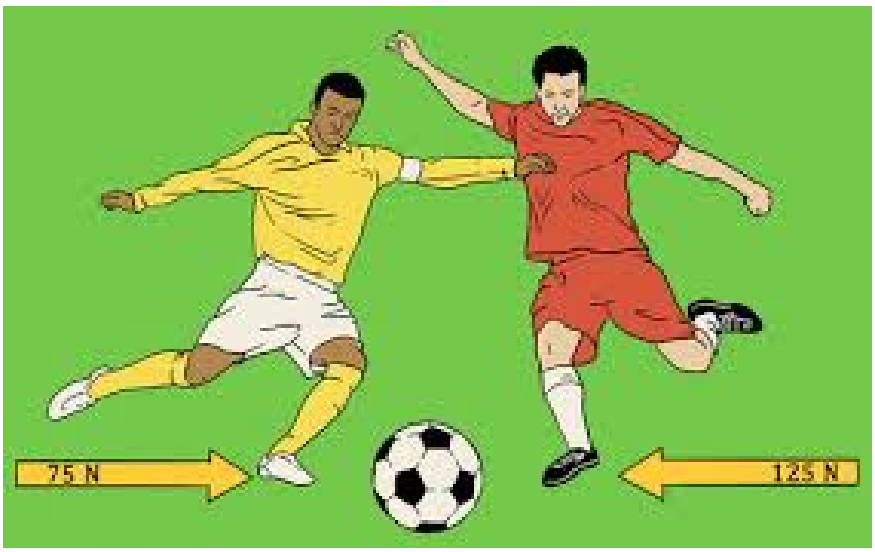
16. Which type of force(s) will cause a change in an object's motion?

- ☐ a) gravity
- ☐ b) zero net force
- ☐ c) balanced forces
- ☐ d) unbalanced forces

17. With unbalanced forces, the object will move in the direction of the _____ force.

- ☐ a) larger
- ☐ b) smaller
- ☐ c) equal

18. _____ is the sum of all forces acting on an object. It is capable of accelerating a mass.



- ☐ a) velocity
- ☐ b) gravity
- ☐ c) net force
- ☐ d) distance

19. A bowling ball is rolled across the parking lot. Which statement about it is true?

- ☐ a) the bowling ball will only stop if it strikes something
- ☐ b) the bowling ball will never stop
- ☐ c) the bowling ball will eventually stop because of friction
- ☐ d) the bowling ball will eventually stop because of inertia

20. If the net force on an object is zero, the object will:

- ☐ a) start moving
- ☐ b) stop moving
- ☐ c) change direction
- ☐ d) there will be no change in the object's motion

Answer Key

1. b
2. a
3. a
4. b
5. a
6. b
7. a
8. a
9. b
10. b
11. d
12. b
13. c
14. a
15. d
16. d
17. a
18. c
19. c
20. d