

Newton's Laws: Quiz 1

1. _____ is the tendency of an object at rest to remain at rest and an object in motion to remain in motion unless a force acts on the object.

- ☐ A. Mass
- ☐ B. Inertia
- ☐ C. Weight
- ☐ D. Volume

2. Which of the following is always true when a net force acts on a stationary object?

- ☐ A. The object changes direction.
- ☐ B. The object remains still.
- ☐ C. No force acts on the object.
- ☐ D. The object moves.

3. Four people are asked to move a square table. One person stands at each of the four sides of the table. If each person pushes the table with a force of 20 N, the table will

- ☐ A. not move because all forces are pushing in the same direction.
- ☐ B. not move because the net force is zero.
- ☐ C. move because a net force of 80 N is acting on it.
- ☐ D. move because unbalanced forces are acting on it.

4. Three people are pushing on a box. Two of them are pushing in the same direction with forces of 180 N and 170 N, and the third is pushing in the opposite direction with a force of 220 N. The net force on the box is _____, and the box moves _____ the third person.

- ☐ A. 130 N, toward
- ☐ B. 130 N, away from
- ☐ C. 570 N, toward
- ☐ D. 570 N, away from

5. A large object with a mass of 1 kg and a small object with a mass of 10 kg are both moving at the same velocity. Which object requires the greater amount of force to bring it to a stop?

- ☐ A. The 1 kg object will require more force to bring it to a stop.
- ☐ B. The 10 kg object will require more force to bring it to a stop.
- ☐ C. Both objects will require the same amount of force to bring them to a stop.
- ☐ D. Neither object requires force to bring them to a stop because they are not accelerating.

6. An object that is not moving will remain in that state as long as all the forces acting on it are

- ☐ A. small.
- ☐ B. external.
- ☐ C. balanced.
- ☐ D. unbalanced.

7. An object can never be in a state of equilibrium when _____ force(s) act(s) on it.

- ☐ A. no
- ☐ B. one
- ☐ C. two
- ☐ D. more than two