

Forces ▪ *Chapter 10 Pre-Assessment*

Write the letter of the correct answer on the line at the left.

- _____ 1. How do you know an object is in motion?
- a. It has inertia.
 - b. It has mass.
 - c. It is changing position.
 - d. It has a reference point.
- _____ 2. What is velocity?
- a. speed
 - b. speed in a given direction
 - c. miles per hour
 - d. change in speed over time
- _____ 3. Which is the best definition of acceleration?
- a. change in velocity
 - b. change in reference point
 - c. increase in speed
 - d. decrease in speed
- _____ 4. If an object starts out at rest and accelerates to 100 m/s, what is its initial speed?
- a. -100 m/s
 - b. 0 m/s
 - c. 100 m/s
 - d. 32 m/s

Forces ▪ *Section 10.1 Quiz*

If the statement is true, write true. If it is false, change the underlined word or words.

- _____ 1. A force is a push or a pull.
- _____ 2. A force is described by its source and by the direction in which it acts.
- _____ 3. The combination of all forces acting on an object is called the total force.
- _____ 4. When two people push on an object in opposite directions, the net force on the object is the difference between their individual forces.
- _____ 5. Balanced forces acting on an object do not change the object's velocity.

Forces ▪ Section 10.2 Quiz

Fill in the blank to complete each statement.

1. Friction is a force that two _____ exert on each other when they rub against each other.
2. The friction that acts on objects that are not moving is called _____ friction.
3. The force of _____ acts between all objects in the universe.
4. _____ varies with the gravitational force.
5. Two kinds of elastic forces are _____ and tension.

Forces ▪ Section 10.3 Quiz

If the statement is true, write true. If it is false, change the underlined word or words.

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|-------|---|
| _____ | 1. Newton's first law is also called the law of <u>conservation of energy</u> . |
| _____ | 2. The greater the mass of an object, the greater its <u>inertia</u> . |
| _____ | 3. An increase in force results in a <u>decrease</u> in acceleration. |
| _____ | 4. Acceleration depends on the net force acting on an object and the object's <u>mass</u> . |
| _____ | 5. <u>Velocity</u> is measured in meters per second per second. |

Forces ▪ Section 10.4 Quiz

Fill in the blank to complete each statement.

1. For every action force there is a(n) _____ force.
2. Action and reaction forces do not _____ because they act on different objects.
3. Momentum is calculated by multiplying an object's mass and _____.
4. If a car and a truck are moving at the same speed, the _____ has more momentum.
5. If a car hits another car from behind, the first car stops and the second one moves because the _____ of the first car has been transferred to the second car.

Forces ▪ Section 10.5 Quiz

If the statement is true, write true. If it is false, change the underlined word or words.

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|-------|---|
| _____ | 1. A rocket rises because the gases it expels exert <u>an upward force</u> on the rocket. |
| _____ | 2. A satellite is any object that <u>lands on</u> another object in space. |
| _____ | 3. A satellite's motion can be described as continuously <u>falling toward</u> Earth. |
| _____ | 4. A satellite in orbit moves ahead due to its <u>booster rockets</u> . |
| _____ | 5. Communications satellites usually circle Earth in <u>24 hours</u> . |