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1. If two people are pulling against each other with forces of 500 Newtons and 600 Newtons, there is a/an
a. balanced force
b. unbalanced force
c. universal gravitation
2. The force of attraction acting between two objects is called
a. inertia
b. universal gravitation
c. momentum
d. buoyancy
3. Rocket engines operate on the principle of
a. a balanced force
b. inertia
c. an unbalanced force
d. action and reaction
4. The tendency of matter to remain in constant motion unless acted on by an outside, unbalanced force is called
a. inertia
b. acceleration
c. momentum
d. force
5. Motion is produced by
a. all forces
b. unbalanced forces
c. balanced forces
d. the absence of force
6. According to Newton's Third Law, action and reaction are
a. equal and in the same direction
b. equal and in opposite directions
c. unequal and in the same direction
d. unequal and in opposite direction
7. The force of gravity between the Earth and a log is called
a. density
b. momentum
c. gravity
d. force
8. If you push on a wall with a force of 30 Newtons, the force acting on you is
a. 0 Newtons
b. 10 Newtons
c. 20 Newtons
d. 30 Newtons
9. If the mass of one object is doubled, what happens to its gravitational attraction?
a. Cut in half.
b. Doubled
c. Nothing. Gravity never changes.
10. Explain the results of the playing card/coin challenge in your own words.

What happened and why?
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1. Motion is produced by
a. all forces
b. unbalanced forces
c. balanced forces
d. the absence of force
2. If you push on a wall with a force of 30 Newtons, the force acting on you is
a. 0 Newtons
b. 10 Newtons
c. 20 Newtons
d. 30 Newtons
3. The tendency of matter to remain in constant motion unless acted on by an outside, unbalanced force is called
a. inertia
b. acceleration
c. momentum
d. force
4. Rocket engines operate on the principle of
a. a balanced force
b. inertia
c. an unbalanced force
d. action and reaction
5. If two people are pulling against each other with forces of 500 Newtons and 600 Newtons, there is $\mathrm{a} / \mathrm{an}$
a. balanced force
b. unbalanced force
c. universal gravitation
6. If the mass of one object is doubled, what happens to its gravitational attraction?
a. Cut in half.
b. Doubled
c. Nothing. Gravity never changes.
7. The force of gravity between the Earth and a log is called
a. density
b. momentum
c. gravity
d. force
8. The force of attraction acting between two objects is called
a. inertia
b. universal gravitation
c. momentum
d. buoyancy
9. According to Newton's Third Law, action and reaction are
a. equal and in the same direction
b. equal and in opposite directions
c. unequal and in the same direction
d. unequal and in opposite direction
10. Explain the results of the jet car challenge in your own words.

What happened and why?
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1. If the mass of one object is doubled, what happens to its gravitational attraction?
a. Cut in half.
b. Doubled
c. Nothing. Gravity never changes.
2. If you push on a wall with a force of 10 Newtons, the force acting on you is
a. 0 Newtons
b. 10 Newtons
c. 20 Newtons
d. 30 Newtons
3. The force of gravity between the Earth and a log is called
a. density
b. momentum
c. gravity
d. force
4. According to Newton's Third Law, action and reaction are
a. equal and in the same direction
b. equal and in opposite directions
c. unequal and in the same direction
d. unequal and in opposite direction
5. The tendency of matter to remain in constant motion unless acted on by an outside, unbalanced force is called
a. inertia
b. acceleration
c. momentum
d. force
6. Motion is produced by
a. all forces
b. unbalanced forces
c. balanced forces
d. the absence of force
7. Rocket engines operate on the principle of
a. a balanced force
b. inertia
c. an unbalanced force
d. action and reaction
8. The force of attraction acting between two objects is called
a. inertia
b. universal gravitation
c. momentum
d. buoyancy
9. If two people are pulling against each other with forces of 600 Newtons and 600 Newtons, there is a/an
a. balanced force
b. unbalanced force
c. universal gravitation
10. Explain the results of the scooter tug of war challenge in your own words.

What happened and why?
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1. If you push on a wall with a force of 10 Newtons, the force acting on you is
a. 0 Newtons
b. 10 Newtons
c. 20 Newtons
d. 30 Newtons
2. If the mass of one object is cut in half, what happens to its gravitational attraction?
a. Cut in half.
b. Doubled
c. Nothing. Gravity never changes.
3. Rocket engines operate on the principle of
a. a balanced force
b. inertia
c. an unbalanced force
d. action and reaction
4. The tendency of matter to remain in constant motion unless acted on by an outside, unbalanced force is called
a. inertia
b. acceleration
c. momentum
d. force
5. Motion is produced by
a. all forces
b. unbalanced forces
c. balanced forces
d. the absence of force
6. According to Newton's Third Law, action and reaction are
a. equal and in the same direction
b. equal and in opposite directions
c. unequal and in the same direction
d. unequal and in opposite direction
7. The force of gravity between the Earth and a house is called
a. density
b. momentum
c. gravity
d. force
8. If two people are pulling against each other with forces of 500 Newtons and 500 Newtons, there is a/an
a. balanced force
b. unbalanced force
c. universal gravitation
9. The force of attraction acting between two objects is called
a. inertia
b. universal gravitation
c. momentum
d. buoyancy
10. Explain the results of the weighted stick challenge in your own words.

What happened and why?

