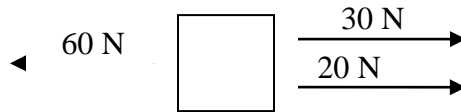


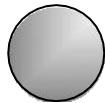
## Forces and Motion (Practice) Test

- 1) A force is described as...
  - a. A push only
  - b. A pull only
  - c. A push or a pull
  - d. None of the above
- 2) What unit do scientists use to measure force?
  - a. Newton
  - b. Grams
  - c. Meters
  - d. Meter per second per second
- 3) What is the net force on the box shown below?

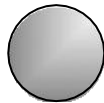


- a. 10 N to the left
  - b. 10 N to the right
  - c. 60 N to the left
  - d. 50 N to the right
- 4) When you slide a box across the floor what force must your push be stronger than?
  - a. Support force
  - b. Friction force
  - c. Gravity
  - d. Air resistance
- 5) The moon has a smaller mass than the Earth. If you were able to travel to the moon your weight would...
  - a. Increase
  - b. Decrease
  - c. Stay the same
  - d. Vary with day and night
- 6) The moon has a smaller mass than the Earth. If you were able to travel to the moon your weight would...
  - e. Increase
  - f. Decrease
  - g. Stay the same
  - h. Vary with day and night

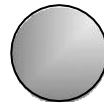
- 7) Which force always pulls downward on objects?
- Support force
  - Friction force
  - Gravity
  - Air resistance
- 8) This test paper is sitting at rest on your desk. Which of the following statements best describes this situation?
- There are no forces acting on your paper.
  - Your paper pushes on the desk only.
  - The desk pushes on your paper only
  - The forces acting on the paper are balanced.
- 9) What forces are acting on a dropped book that falls to the floor?
- Gravity only
  - Gravity and air resistance
  - Air resistance
  - Friction only
- 10) Which ball will hit the ground first if dropped at the same time and at the same height in a perfect vacuum?



wood ball



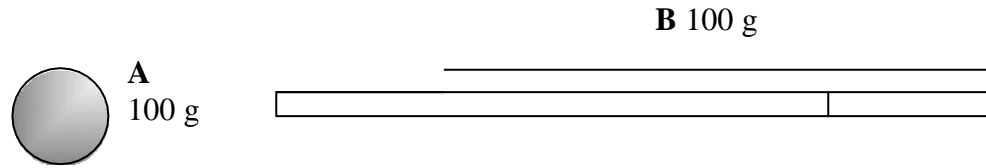
Plastic ball



metal ball

- Metal first, then plastic, then wood last
- Wood first , then plastic, then metal last
- They will all hit at the same time.
- There is no way to tell.

11) Which object will hit the ground first if dropped at the same time at the same height in a perfect vacuum?



- a. Object A because it is round.
- b. They will hit at the same time.
- c. Object B because it has a large surface area.
- d. There is no way to tell.

12) A change to an objects motion is caused by...

- a. Balanced forces
- b. Unbalanced forces
- c. Acceleration
- d. Velocity

13) When you walk across the ground and push on it with your feet...

- a. There is no effect on the ground.
- b. The ground pushes back less strongly than your feet.
- c. The ground pushes back more strongly than your feet.
- d. The ground pushes back on your feet with equal force.

14) A bowling ball and a tennis ball are dropped off of the Empire State building. Which object will be affected by air resistance?

- a. Tennis ball
- b. Bowling ball
- c. Both the bowling ball and tennis ball
- d. Neither the bowling ball or tennis ball

15) Terminal velocity occurs when\_\_\_\_\_.

- a. gravity has pushed the object with too much force.
- b. the force of air resistance is greater than the force of gravity.
- c. the force of gravity and air resistance are equal.
- d. the object reaches 100mph.

