

Momentum

Total questions: 15

Worksheet time: 11mins

1. Why is momentum considered to be a vector quantity?
 - a) Momentum has to indicate both magnitude and direction.
 - b) Momentum has to have a positive value.
 - c) Momentum has to be calculated using speed.
 - d) Momentum has a quantity but not a unit.
2. Which of the following is the formula for momentum?
 - a) $p = mv$
 - b) $M = mv$
 - c) $F = ma$
 - d) $g = mc^2$
3. Which of the following is the unit for momentum?
 - a) $\text{kg}\cdot\text{m/s}$
 - b) $\text{kg}\cdot\text{m}$
 - c) $\text{kg}\cdot\text{m/s}^2$
 - d) Momentum has no unit.
4. The momentum of an object is related to the object's mass and velocity.
 - a) True
 - b) False
5. An object with a mass of 2000 kg at rest has what momentum?
 - a) 2000 kg m/sec
 - b) 0 kg m/sec
 - c) 2000 kg
 - d) 2000 m/sec
6. When the speed of an object is doubled, its momentum
 - a) remains unchanged in accord with the conservation of momentum.
 - b) doubles
 - c) quadruples
 - d) decreases

7. The momentum of an object depends upon the object's _____ & _____.

- a) size and shape
- b) mass and speed
- c) mass and velocity
- d) mass and energy

8. Determine the momentum of 1000-kg car moving northward at 20 m/s.....

- a) 20000 N
- b) 20000 Joules
- c) 20000 Kg * m/s
- d) 20000 kg * m/s north

9. Momentum is a _____ quantity

- a) science
- b) scalar
- c) vector
- d) energy

10. Which of the following has the least amount of momentum?

- a) An ant walking along the ground
- b) An ant at rest
- c) An elephant walking
- d) An elephant running

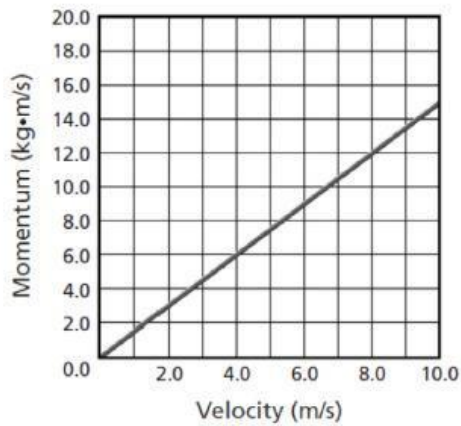
11.



A 50 kg ball rolls down the street at 5 m/s. Calculate the momentum of the ball.

- a) 55 kg*m/s
- b) 100 kg*m/s
- c) 250 kg*m/s
- d) 500 kg*m/s

12.



what is the objects momentum for 8 m/s

- a) 6
- b) 8
- c) 10
- d) 12

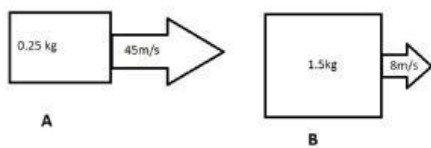
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The definition of momentum is

- a) Mass in Motion
- b) The size of an object
- c) The velocity of an object
- d) A comparison between two objects

14.



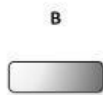
Which of the following images has more momentum?

- a) Object A
- b) Object B
- c) They are the same

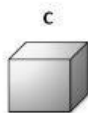
15.



$$m$$
$$v$$



$$m/2$$
$$4v$$



$$6m$$
$$v/2$$

Which object has the greatest momentum?

a) Object A

b) Object B

c) Object C

d) cannot be determined