

QUIZZZ

Momentum
15 Questions

NAME : _____

CLASS : _____

DATE : _____

1. Why is momentum considered to be a vector quantity?

Momentum has a quantity but not a unit.

Momentum has to have a positive value.

Momentum has to be calculated using speed.

Momentum has to indicate both magnitude and direction.

2. Which of the following is the formula for momentum?

$$g = mc^2$$

$$M = mv$$

$$p = mv$$

$$F = ma$$

3. Which of the following is the unit for momentum?

$$\text{kg}\cdot\text{m}/\text{s}^2$$

$$\text{kg}\cdot\text{m}/\text{s}$$

$$\text{kg}\cdot\text{m}$$

Momentum has no unit.

4. The momentum of an object is related to the object's mass and velocity.

True

False

5. An object with a mass of 2000 kg at rest has what momentum?

2000 kg m/sec

0 kg m/sec

2000 m/sec

2000 kg

6. When the speed of an object is doubled, its momentum
- | | |
|--|------------|
| decreases | quadruples |
| remains unchanged in accord with the conservation of momentum. | doubles |
7. The momentum of an object depends upon the object's _____ & _____.
- | | |
|-----------------|-------------------|
| size and shape | mass and velocity |
| mass and energy | mass and speed |
8. Determine the momentum of 1000-kg car moving northward at 20 m/s.....
- | | |
|----------------|----------------------|
| 20000 Kg * m/s | 20000 N |
| 20000 Joules | 20000 kg * m/s north |
9. Momentum is a _____ quantity
- | | |
|---------|--------|
| scalar | vector |
| science | energy |
10. Which of the following has the least amount of momentum?
- | | |
|---------------------|---------------------------------|
| An elephant walking | An ant at rest |
| An elephant running | An ant walking along the ground |

11.



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

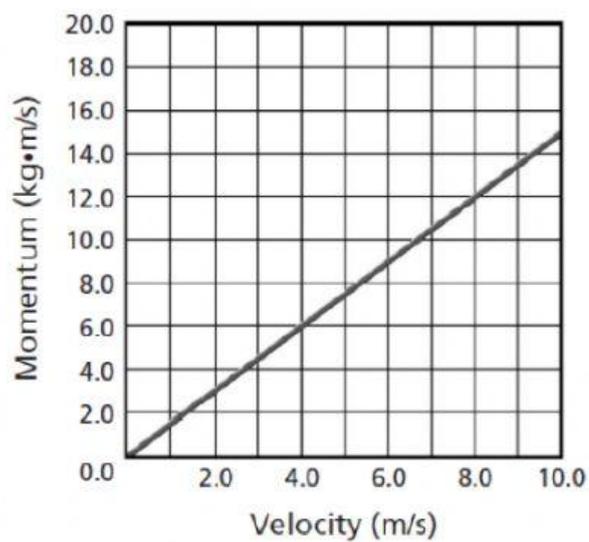
100 kg*m/s

250 kg*m/s

500 kg*m/s

55 kg*m/s

12.



what is the objects momentum for 8 m/s

8

6

12

10

13.



The definition of momentum is

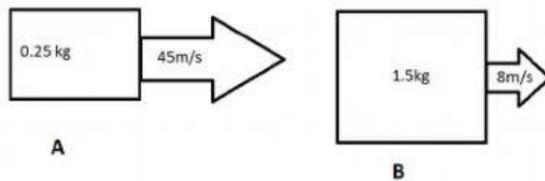
A comparison between two objects

Mass in Motion

The velocity of an object

The size of an object

14.



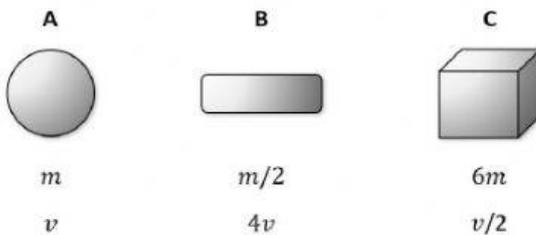
Which of the following images has more momentum?

They are the same

Object A

Object B

15.



Which object has the greatest momentum?

cannot be determined

Object B

Object C

Object A