



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

Subject- Physics Answer Worksheet- 15

Class – IX

Date-15.04.2020

1stTerm

Topic – Linear Momentum

Question 1.

Q. In this type of collision, objects tend to "stick" together.

inelastic

- Question 2

Q. A 0.250 kg cart moving at 0.400 m/s has how much momentum?

0.1 kg-m/s

- Question 3

Q. When the speed of an object is doubled, its momentum

remains unchanged in accord with the conservation of momentum.
doubles

- Question 4

Q. A big fish swims upon and swallows a small fish at rest. After lunch, the big fish has less
velocity

- Question 5

Q. An 1 kg object moving to the right at 2 m/s collides inelastically with a 1 kg object moving to the left at 2 m/s. The final velocity of both objects will be

0 m/s

- Question 6

Q. Which object listed below has the greatest momentum?

A 0.4 kg object rolling at 2 m/s.

- Question 7

Q. Two football players with mass 75 kg and 100 kg run directly toward each other with speeds of 6 m/s and 8 m/s respectively. If they grab each other as they collide, the combined speed of the two players just after the collision would be:

2 m/s

- Question 8

Q. A 2 kg cart has a momentum of 16 kg m/s. What is its velocity?

8 m/s

Question 9

Q. The law of conservation of momentum states that,

p before is the same as p after

Question 10

Q. The units for Impulse are

N-s

- Question 11

Q. Momentum is conserved in this type of collision

momentum is conserved in both types of collisions

- Question 12

Q. Cart A is pulled with a 2 Newton force for 2 seconds, and Cart B is pulled with a 1 Newton force for 3 seconds. Which cart experiences the greatest impulse?

Cart A

they are the same

- Question 13

Q. A bug flies into the windshield of a car going the opposite way. Which of the following are true.

A, B, and C are all true

- Question 14

Q. Momentum is a _____ quantity

vector

- Question 15

Q. A 10kg toy truck moves at 5m/s East. It collides head-on with a 5kg toy car moving 10 m/s moving west. What is the total momentum of the system?

0 kgm/s

Teacher- PiyaliHalder