

Physics 12 Review #28

1.

A 2.0 kg cart travelling east at 4.0 m/s strikes a stationary 8.0 kg cart. After the collision, the 2.0 kg cart bounces back towards the west at 2.0 m/s, while the 8.0 kg cart travels east at 1.5 m/s. Which of the following is the change in momentum for each cart?

	2.0 kg CART Δp (kg · m/s)	8.0 kg CART Δp (kg · m/s)
A.	4.0 East	12 West
B.	4.0 West	12 East
C.	12 East	12 West
D.	12 West	12 East

2.

A 0.25 kg ball moving north at 7.7 m/s strikes a wall obliquely and rebounds heading east with the same speed of 7.7 m/s. What was the magnitude and direction of the impulse on the ball?

	MAGNITUDE OF THE IMPULSE	DIRECTION OF THE IMPULSE
A.	1.9 N · s	Due East
B.	1.9 N · s	45°S of E
C.	2.7 N · s	Due East
D.	2.7 N · s	45°S of E