

## B Physics Interactive Quiz : Momentum

Name:

#	6	question	Answer			0	<--score
# 1	600	m/s is the velocity of a 250 gram bullet fired from a gun. Find the momentum for one bullet.		150	100	0	
# 2	6	m/s is the velocity of 100 kg Boris, running towards you. How many bullets (exactly) would it take to stop Boris?		4	100	0	
# 3	240	kg is your mass, including the wheeled bed you are on. Calculate your velocity after stopping Boris.		2.5	100	0	
# 4	120	m/s is the velocity of a 1200 kg car going north that crashes into an eastbound car of mass 3000 kg going 20 m/s. Find the angle (east of north) the wreck moves off if the cars stick together.		22.619	100	0	
# 5	120	m/s is the velocity of a 500 gram baseball. Find the momentum		60	100	0	
# 6	120	If this ball hits your mit at 0.2 seconds, find the force.		300	100	0	
# 7	48	kg is the mass of a block hit by a 300 gram bullet going 200 m/s. Find the $\Delta h$ for the block		7.87e-2	100	0	
# 8	180	m/s is the velocity of your car as it hits a tree. Your 50 kg body is slowed to zero in 0.8 seconds by the seatbelts. Find the force.		11250	100	0	
# 9	180	Find the force if you instead hit the windshield taking 0.02 seconds		450000	100	0	
# 10	30	m/s is the velocity of a cart that hits an identical cart standing still. Find the final velocity of the carts if they stick together.		15	100	0	

**Extra Credit: Explain how two pool balls colliding, one moving off to the right, one to the left demonstrates conservation of momentum.**