Momentum – Ch. 12

PART A – MOMENTUM

1) A moving car has momentum. If it moves twice as fast, its momentum is _____ as much.

2) Two cars, one twice as heavy as the other, move down a hill at the same speed. Compared to the lighter car, the momentum of the heavier car is _____ as much.

3) A steel ball whose mass is 2.0 kg is rolling at a rate of 2.8 m/s. What is its momentum?

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ANSWER:	

4) A marble is rolling at a velocity of 1.5 m/s with a momentum of 0.10 kg·m/s. What is its mass?

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5) On April 15, 1912, the luxury cruise liner Titanic sank after running into an iceberg. What was the cruise liner's speed when it collided with the ice berg if it had a mass of 4.23×10^8 kg ship and a momentum of 4.9×10^9 kg·m/s?

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