

Question 1

A ball is at rest on the ground. A boy kicks the ball. The boy's boot is in contact with the ball for a time of 0.040 s.

The average force on the ball is 200 N. The ball leaves the boy's boot with a speed of 20 m/s.

Which row gives the impulse of the boot on the ball and the average acceleration of the ball during the time of 0.040 s?

	<u>impulse on ball</u> Ns	<u>average acceleration of ball</u> m/s ²
A	8	0.8
B	8	500
C	5000	0.8
D	5000	500