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2. Two particles, P and Q , have masses $2m$ and m respectively. The particles are moving towards each other in opposite directions along the same straight line on a smooth horizontal plane. The particles collide directly.

Immediately before the collision, the speed of P is $3u$ and the speed of Q is $2u$.

The magnitude of the impulse exerted on Q by P in the collision is $5mu$.

Find

- (a) the speed of P immediately after the collision, (3)
 (b) the speed of Q immediately after the collision. (3)



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Question 2 continued

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Q2

(Total 6 marks)



P 6 1 9 0 2 A 0 5 2 4