

Question number	Answer	Mark
2	<p>The only correct answer is D because $E_K = p^2 / 2m$ and doubling momentum increase E_K by a factor of 4 and halving the mass increase E_K by a factor of 2, so the overall change is an increase by a factor of 8.</p> <p>A $E_K = p^2 / 2m$ and doubling momentum increase E_K by a factor of 4 and halving the mass increase E_K by a factor of 2, so the overall change is an increase by a factor of 8, not a decrease by a factor of 8</p> <p>B $E_K = p^2 / 2m$ and doubling momentum increase E_K by a factor of 4 and halving the mass increase E_K by a factor of 2, so the overall change is an increase by a factor of 8, not a decrease by a factor of 2</p> <p>C $E_K = p^2 / 2m$ and doubling momentum increase E_K by a factor of 4 and halving the mass increase E_K by a factor of 2, so the overall change is an increase by a factor of 8, not an increase by a factor of 2</p>	(1)