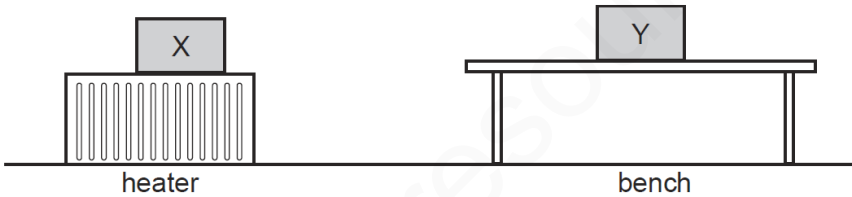


## AVERAGE SPEED-SET-1

1	<p>A tunnel has a length of 50 km. A car takes 20 min to travel between the two ends of the tunnel.</p> <p>What is the average speed of the car?</p> <p><b>A</b> 2.5 km/h  <b>B</b> 16.6 km/h  <b>C</b> 150 km/h  <b>D</b> 1000 km/h</p>
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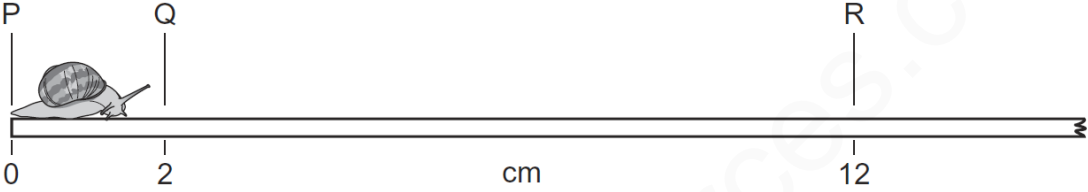
MS-1	C
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2	<p>Two metal boxes containing air are standing in a room. Box X is on top of a heater. Box Y is on a bench. The boxes are left for a long time.</p> <div style="text-align: center;">  <p style="margin-left: 100px;">heater</p> <p style="margin-left: 300px;">bench</p> </div> <p>Which line in the table best describes the average speed of the molecules in the containers?</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>box X</th> <th>box Y</th> </tr> </thead> <tbody> <tr> <td><b>A</b></td> <td>fast</td> <td>zero</td> </tr> <tr> <td><b>B</b></td> <td>fast</td> <td>slow</td> </tr> <tr> <td><b>C</b></td> <td>slow</td> <td>fast</td> </tr> <tr> <td><b>D</b></td> <td>zero</td> <td>fast</td> </tr> </tbody> </table>		box X	box Y	<b>A</b>	fast	zero	<b>B</b>	fast	slow	<b>C</b>	slow	fast	<b>D</b>	zero	fast
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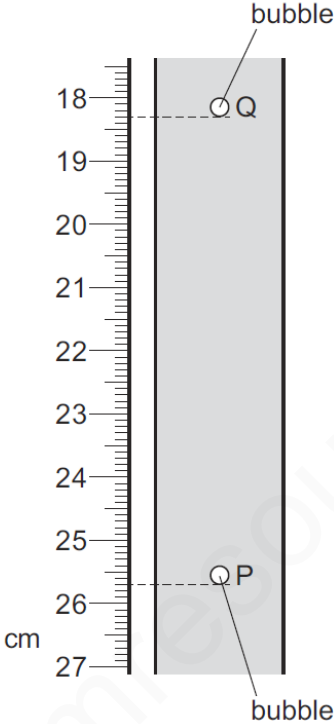
MS-2	B
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3	<p>The circuit of a motor racing track is 3 km in length. In a race, a car goes 25 times round the circuit in 30 minutes.</p> <p>What is the average speed of the car?</p> <p><b>A</b> 75 km/hour  <b>B</b> 90 km/hour  <b>C</b> 150 km/hour  <b>D</b> 750 km/hour</p>
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MS-3	C
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4	<p>A car travels 100 km. The highest speed of the car is 90 km/h, and the lowest speed is 30 km/h. The journey takes two hours.</p> <p>What is the average speed for the journey?</p> <p><b>A</b> 30 km/h      <b>B</b> 50 km/h      <b>C</b> 60 km/h      <b>D</b> 90 km/h</p>
MS-4	B
5	<p>A snail moves along a ruler. It takes 20 s to move from Q to R.</p>  <p>What is its average speed from Q to R?</p> <p><b>A</b> <math>\frac{12}{20}</math> cm/s</p> <p><b>B</b> <math>\frac{12-2}{20}</math> cm/s</p> <p><b>C</b> <math>\frac{20}{12}</math> cm/s</p> <p><b>D</b> <math>\frac{20}{12-2}</math> cm/s</p>
MS-5	B
6	<p>In a race, a car travels 60 times around a 3.6 km track. This takes 2.4 hours.</p> <p>What is the average speed of the car?</p> <p><b>A</b> 1.5 km/h      <b>B</b> 90 km/h      <b>C</b> 144 km/h      <b>D</b> 216 km/h</p>
MS-6	B

7	<p>A car travels at various speeds during a short journey.</p> <p>The table shows the distances travelled and the times taken during each of four stages P, Q, R and S.</p> <table border="1" data-bbox="405 360 1310 512"> <thead> <tr> <th>stage</th> <th>P</th> <th>Q</th> <th>R</th> <th>S</th> </tr> </thead> <tbody> <tr> <td>distance travelled / km</td> <td>1.8</td> <td>3.6</td> <td>2.7</td> <td>2.7</td> </tr> <tr> <td>time taken / minutes</td> <td>2</td> <td>2</td> <td>4</td> <td>3</td> </tr> </tbody> </table> <p>During which two stages is the car travelling at the same average speed?</p> <p><b>A</b> P and Q      <b>B</b> P and S      <b>C</b> Q and R      <b>D</b> R and S</p>	stage	P	Q	R	S	distance travelled / km	1.8	3.6	2.7	2.7	time taken / minutes	2	2	4	3
stage	P	Q	R	S												
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MS-7	B															
8	<p>A car takes 15 minutes to travel along a road that is 20 km long.</p> <p>What is the average speed of the car?</p> <p><b>A</b> 0.75 km/h      <b>B</b> 5.0 km/h      <b>C</b> 80 km/h      <b>D</b> 300 km/h</p>															
MS-8	C															
9	<p>A car travels 100 km. The journey takes two hours. The highest speed of the car is 80 km/h, and the lowest speed is 40 km/h.</p> <p>What is the average speed for the journey?</p> <p><b>A</b> 40 km/h      <b>B</b> 50 km/h      <b>C</b> 60 km/h      <b>D</b> 120 km/h</p>															
MS-9	B															

10	<p>A student determines the average speed of a bubble rising through a liquid at constant speed.</p> <p>When the student starts the stopwatch the bubble is at position P.</p> <p>After 2.0 s the bubble is at position Q.</p>  <p>What is the speed of the bubble between P and Q?</p> <p><b>A</b> 3.2 cm/s      <b>B</b> 3.7 cm/s      <b>C</b> 6.4 cm/s      <b>D</b> 7.4 cm/s</p>
MS-10	B
11	<p>A pendulum is swinging. Five students each measure the time it takes to swing through ten complete swings.</p> <p>Three students measure the time as 17.2 s. Another student measures it as 16.9 s, and the fifth student measures it as 17.0 s.</p> <p>What is the average period of the pendulum?</p> <p><b>A</b> 1.69 s      <b>B</b> 1.70 s      <b>C</b> 1.71 s      <b>D</b> 1.72 s</p>
MS-11	C