

SPEED-DISTANCE-TIME-SET-1

1	<p>A bus leaves Afford at 07 55. It travels 15 km to Beetown at a speed of 50 km/h.</p> <p>Find the time the bus arrives in Beetown.</p> <p style="text-align: right; margin-top: 100px;"><i>Answer</i> [3]</p>		
MS-1	08 13 oe	3	M1 for distance/speed seen (implied by 0.3) A1 for 18 minutes [3]
2	<p>Joe is training for a triathlon.</p> <p>During one training session he</p> <ul style="list-style-type: none"> • swims 1 km in 15 minutes, • cycles 20 km at a speed of 20 km/h, • runs at a speed of 8 km/h for 45 minutes. <p>Calculate Joe's average speed for the training session. Give your answer in kilometres per hour.</p> <p style="text-align: right; margin-top: 100px;"><i>Answer</i> km/h [3]</p>		
MS-2	13.5	3	B1 for total distance = 27km B1 for total time = 2 hours [3]

3	<p>Wendy walks 9 km in $1\frac{1}{2}$ hours. She then runs 9 km in 45 minutes. Find her average speed in km/h for the whole journey.</p> <p style="text-align: right;"><i>Answer</i> km/h [3]</p>		
MS-3	8	3	B1 for 2.25 o.e. or 135 seen M1 $\frac{18}{their (2.25)}$ or $\frac{18}{135} \times 60$
4	<p>Alex drives 40 km to work at a speed of 50 km/h. He leaves home at 0745. Find the time he arrives at work.</p> <p style="text-align: right;">..... [3]</p>		
MS-4	[0]8 33	3	M2 for $\frac{40}{50} \times 60$ oe or M1 for $\frac{40}{50}$ soi

5	<p>Sacha drove 425 km from home at an average speed of 100 km/h.</p> <p>(a) Calculate the time for the journey giving your answer in hours and minutes.</p> <p style="text-align: right;">..... h min [2]</p> <p>(b) The return journey took 3 hours and 55 minutes. She started at 21 56.</p> <p>At what time did she arrive home?</p> <p style="text-align: right;">..... [2]</p>		
MS-5	(a)	4 [h] 15 [min]	2 M1 for $425 \div 100$ soi by 4.25 oe
	(b)	[0]1 51 oe	2 B1 for 25 51
6	<p>A car travels 85 km in 50 minutes.</p> <p>Find the average speed of the car, giving your answer in km/h.</p> <p style="text-align: right;">..... km/h [2]</p>		
MS-6		102	2 M1 for $\frac{85}{50}[\times 60]$ oe

7	<p>Erica walks 13 km in 2 hours. She then runs at a speed of 12 km/h for 45 minutes.</p> <p>Find her average speed in km/h for the whole journey.</p> <p style="text-align: right;">..... km/h [3]</p>		
MS-7	8	3	<p>M1 for correctly finding total time or total distance M1 for <i>their</i> distance/<i>their</i> time</p>
8	<p>Danny stands to watch a train go past. The train has a length of 120m and takes 3 seconds to pass.</p> <p>Find the speed of the train</p> <p>(a) in m/s,</p> <p style="text-align: right;">..... m/s [1]</p> <p>(b) in km/h.</p> <p style="text-align: right;">..... km/h [2]</p>		
MS-8	(a)	40	1
	(b)	144	<p>2 FT <i>their</i> (a) M1 for <i>their</i> $40 \times \frac{60 \times 60}{1000}$ oe or $\frac{120}{1000 \times 3} \times 60 \times 60$ oe</p>

9	<p>Xian walks 8 km in $1\frac{1}{2}$ hours.</p> <p>She then runs 10 km in 45 minutes.</p> <p>Find her average speed in km/h for the whole journey.</p> <p style="text-align: right;">..... km/h [3]</p>		
MS-9	8	3	<p>M1 for $\frac{\text{total distance}}{\text{total time}}$ oe</p> <p>B1 for 2.25 oe seen</p>