

Converting Metric Units of Speed

(a)	(b)	(c)	(d)																																
<p style="text-align: center;">Convert 54 km/h to m/s</p> <table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;">54 km</td> <td style="padding: 5px;">1 hour</td> </tr> <tr> <td style="padding: 5px;">54000 m</td> <td style="padding: 5px;">1 hour</td> </tr> <tr> <td style="padding: 5px;">900 m</td> <td style="padding: 5px;">1 minute</td> </tr> <tr> <td style="padding: 5px;">15 m</td> <td style="padding: 5px;">1 second</td> </tr> </table>	54 km	1 hour	54000 m	1 hour	900 m	1 minute	15 m	1 second	<p style="text-align: center;">Convert 90 km/h to m/s</p> <table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;">90 km</td> <td style="padding: 5px;">1 hour</td> </tr> <tr> <td style="padding: 5px;">90000 m</td> <td style="padding: 5px;">1 hour</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">1 minute</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">1 second</td> </tr> </table>	90 km	1 hour	90000 m	1 hour		1 minute		1 second	<p style="text-align: center;">Convert 45 km/h to m/s</p> <table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;">45 km</td> <td style="padding: 5px;">1 hour</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">1 hour</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">1 minute</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">1 second</td> </tr> </table>	45 km	1 hour		1 hour		1 minute		1 second	<p style="text-align: center;">Convert 126 km/h to m/s</p> <table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;">126 km</td> <td style="padding: 5px;">1 hour</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> </table>	126 km	1 hour						
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<p style="text-align: center;">Convert 10 m/s to km/h</p> <table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;">10 m</td> <td style="padding: 5px;">1 second</td> </tr> <tr> <td style="padding: 5px;">600 m</td> <td style="padding: 5px;">1 minute</td> </tr> <tr> <td style="padding: 5px;">36000 m</td> <td style="padding: 5px;">1 hour</td> </tr> <tr> <td style="padding: 5px;">36 km</td> <td style="padding: 5px;">1 hour</td> </tr> </table>	10 m	1 second	600 m	1 minute	36000 m	1 hour	36 km	1 hour	<p style="text-align: center;">Convert 2.5 m/s to km/h</p> <table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;">2.5 m</td> <td style="padding: 5px;">1 second</td> </tr> <tr> <td style="padding: 5px;">150 m</td> <td style="padding: 5px;">1 minute</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">1 hour</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">1 hour</td> </tr> </table>	2.5 m	1 second	150 m	1 minute		1 hour		1 hour	<p style="text-align: center;">Convert 30 m/s to km/h</p> <table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;">30 m</td> <td style="padding: 5px;">1 second</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">1 minute</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">1 hour</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">1 hour</td> </tr> </table>	30 m	1 second		1 minute		1 hour		1 hour	<p style="text-align: center;">Convert 7.5 m/s to km/h</p> <table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;">7.5 m</td> <td style="padding: 5px;">1 second</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> </table>	7.5 m	1 second						
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<p>(i)</p> <p>A car is travelling at 14 m/s. The speed limit is 50 km/h. Is the car breaking the speed limit? You must show your working.</p>	<p>(j)</p> <p>A lorry travels at x km/h. Find an expression for the speed of the motorbike in metres per second.</p>																																		