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Period

## Velocity Problems

1. What is the speed of a car that travels 150 km in 3.00 hrs ? Is the car speeding on Mesa st.? (Speed limit on Mesa st. is $45 \mathrm{mi} / \mathrm{hr})(1.0 \mathrm{~m} / \mathrm{s}=2.23 \mathrm{mi} / \mathrm{hr})$
2. A vehicle travels 2345 m in 315 s toward the evening sun. What is its velocity?
3. What is the speed of a bus that travels 250.0 km in 2.00 hours?
4. Convert your answer from 3 to meters per second.
5. What distance will a car traveling $65 \mathrm{~km} / \mathrm{hr}$ travel in 3.0 hrs ?
6. What distance will be traveled if you are going $120 \mathrm{~km} / \mathrm{hr}$ for 30 . min?
7. How long will it take to go 150 km traveling at $50 \mathrm{~km} / \mathrm{hr}$ ?
8. How long will it take to travel 200 km traveling $10 \mathrm{~m} / \mathrm{s}$ ?
9. If a rocket travels 5600 . km in 3.00 hours, what is its speed?
10. Convert to $\mathrm{m} / \mathrm{s}$.
11. A car travels 240 km in 2.0 hrs and a sprinter travels a 100 m in 9.5 s . Which is traveling faster and by how much?
12. What is the acceleration of a car that goes from $40 \mathrm{~km} / \mathrm{hr}$ to $80 \mathrm{~km} / \mathrm{hr}$ in 2 s ?
13. What is the acceleration of a sprinter who finishes the race traveling $24 \mathrm{~m} / \mathrm{s}$ ? She ran for 12 s .
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14. A vehicle that goes from $5 \mathrm{~m} / \mathrm{s}$ to $45 \mathrm{~m} / \mathrm{s}$ in 8 s . What is its acceleration?
15. What is the acceleration of a bike that goes from $38 \mathrm{~km} / \mathrm{hr}$ to a stop in 4.5 s ?
16. You drive a car from El Paso to Tucson in 255 min . What is its velocity in $\mathrm{km} / \mathrm{hr}$ and speed in $\mathrm{m} / \mathrm{s}$ ? Were you speeding? Use 304 miles as your distance.
17. How far will you go in 3.0 min traveling $60 \mathrm{~km} / \mathrm{hr}$ ?
18. What is the acceleration of a car going from $3.0 \times 10^{1} \mathrm{~km} / \mathrm{hr}$ to $1.20 \times 10^{2} \mathrm{~km} / \mathrm{hr}$ in $3.0 \times 10^{1} \mathrm{sec}$ ?
19. What is the acceleration of a vehicle that goes from $35 \mathrm{~m} / \mathrm{s}$ to a stop in 35 s ?
20. Convert $36 \mathrm{~km} / \mathrm{hr}$ to $\mathrm{m} / \mathrm{s}$.
