

Ex : A car travels along the highway at 65 mi/hr.
Express this speed in m/s.

Proper:

$$\frac{65 \text{ mi}}{\text{hr}} \cdot \frac{1 \text{ hr}}{3600 \text{ s}} \cdot \frac{1609 \text{ m}}{1 \text{ mi}} = 29 \text{ m/s}$$

Improper:

$$65 \cdot 1609/3600 = 29$$

$$\frac{65 \text{ mi}}{\text{hr}} \cdot \frac{1 \text{ hr}}{3600 \text{ s}} \cdot \frac{1609 \text{ m}}{1 \text{ mi}} = 29.05139 \text{ m/s}$$