

Analyze This (Dimensional Analysis)

- 1) $\frac{81 \cancel{\text{m}}}{1} \times \frac{1000 \text{ mm}}{1 \cancel{\text{m}}} = 81000 \text{ mm}$
- 2) $\frac{1.5 \cancel{\text{m}}}{1} \times \frac{100 \text{ cm}}{1 \cancel{\text{m}}} = 150 \text{ cm}$
- 3) $\frac{555 \cancel{\text{cm}}}{1} \times \frac{1 \text{ km}}{10000 \cancel{\text{cm}}} = .0555 \text{ km}$
- 4) $\frac{180 \cancel{\text{min}}}{1} \times \frac{1 \text{ hr}}{60 \cancel{\text{min}}} = 3 \text{ hr}$
- 5) $\frac{3 \cancel{\text{hr}}}{1} \times \frac{60 \cancel{\text{min}}}{1 \cancel{\text{hr}}} \times \frac{60 \text{ sec}}{1 \cancel{\text{min}}} = 10800 \text{ sec}$
- 6) $\frac{1000 \cancel{\text{days}}}{1} \times \frac{1 \text{ yr}}{365.25 \cancel{\text{days}}} = 2.7 \text{ yrs}$
- 7) $\frac{25 \cancel{\text{kg}}}{1} \times \frac{10000 \text{ dg}}{1 \cancel{\text{kg}}} = 250000 \text{ dg}$
- 8) $\frac{10500 \cancel{\text{mm}}}{1} \times \frac{1 \text{ Dm}}{10000 \cancel{\text{mm}}} = 1.05 \text{ Dm}$
- 9) $\frac{15 \cancel{\text{kg}}}{1} \times \frac{100000 \text{ cg}}{1 \cancel{\text{kg}}} = 1500000 \text{ cg}$
- 10) $\frac{2 \cancel{\text{L}}}{1} \times \frac{1000 \text{ ml}}{1 \cancel{\text{L}}} = 2000 \text{ ml}$

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