

Conversion of Units (Multiple Units)

KEY

Convert the following (Show your Steps)

1. 12m/s to km/h	$\frac{12\cancel{\text{m}}}{1\cancel{\text{s}}} \cdot \frac{1\cancel{\text{km}}}{1000\cancel{\text{m}}} \cdot \frac{60\cancel{\text{sec}}}{1\cancel{\text{min}}} \cdot \frac{60\cancel{\text{mins}}}{1\cancel{\text{hr}}}$ $\frac{43200\cancel{\text{m}}}{1000\cancel{\text{hr}}} = \boxed{43.2\cancel{\text{km}}/\cancel{\text{hr}}}$
2. 3400cm/hour to m/min	$\frac{3400\cancel{\text{cm}}}{\cancel{\text{hour}}} \cdot \frac{1\cancel{\text{m}}}{100\cancel{\text{cm}}} \cdot \frac{1\cancel{\text{h}}}{60\cancel{\text{mins}}}$ $\frac{3400\cancel{\text{m}}}{6000\cancel{\text{min}}} = \boxed{0.57\cancel{\text{m}}/\cancel{\text{min}}}$
3. 12km/day to cm/hour	$\frac{12\cancel{\text{km}}}{1\cancel{\text{day}}} \cdot \frac{1000\cancel{\text{m}}}{1\cancel{\text{km}}} \cdot \frac{100\cancel{\text{cm}}}{1\cancel{\text{m}}} \cdot \frac{24\cancel{\text{hours}}}{1\cancel{\text{day}}}$ $\frac{12 \cdot 1000 \cdot 100}{24} = \boxed{50000\cancel{\text{cm}}/\cancel{\text{hr}}}$
4. 1 234 000m/s to km/min	$\frac{1234000\cancel{\text{m}}}{1\cancel{\text{s}}} \cdot \frac{1\cancel{\text{km}}}{1000\cancel{\text{m}}} \cdot \frac{60\cancel{\text{sec}}}{1\cancel{\text{min}}}$ $\frac{1234000 \cdot 60}{1000} = \boxed{74040\cancel{\text{km}}/\cancel{\text{min}}}$
5. 0.35cm/sec to mm/min	$\frac{0.35\cancel{\text{cm}}}{\cancel{\text{sec}}} \cdot \frac{10\cancel{\text{mm}}}{1\cancel{\text{cm}}} \cdot \frac{60\cancel{\text{sec}}}{1\cancel{\text{min}}}$ $0.35 \cdot 10 \cdot 60 = \boxed{210\cancel{\text{mm}}/\cancel{\text{min}}}$