

Multiple Step Conversions

Multiple steps

$$\text{ft/s} \rightarrow \frac{\text{ft}}{\text{s}}$$

$$1) \frac{92 \cancel{\text{ft}}}{1 \cancel{\text{s}}} \left| \frac{1 \text{ m}}{3.28 \cancel{\text{ft}}} \right| \frac{60 \cancel{\text{s}}}{1 \text{ min}} = 1.68 \times 10^3 \frac{\text{m}}{\text{min}}$$

or
1682 $\frac{\text{m}}{\text{min}}$

$$2) \frac{9.34 \times 10^4 \cancel{\text{m}}}{\cancel{\text{s}}} \left| \frac{1 \text{ km}}{1000 \cancel{\text{m}}} \right| \frac{3600 \cancel{\text{s}}}{1 \text{ h}} = 336240 \frac{\text{km}}{\text{h}}$$

or
 $3.36 \times 10^5 \frac{\text{km}}{\text{h}}$

$$3) \frac{4.6 \cancel{\text{m}}}{\cancel{\text{s}}} \left| \frac{3.28 \cancel{\text{ft}}}{1 \cancel{\text{m}}} \right| \frac{60 \cancel{\text{s}}}{1 \text{ min}} = 905.6 \text{ ft}$$

$$4) \frac{3210 \cancel{\text{ft}}^2}{\cancel{\text{s}}} \left| \frac{1 \cancel{\text{m}}^2}{3.28 \cancel{\text{ft}}^2} \right| \frac{60 \cancel{\text{s}}}{1 \text{ min}} = 17891.4 \frac{\text{m}^2}{\text{min}}$$

$$5) \frac{458 \text{ m}^3}{1} \left| \frac{3.28^3 \text{ ft}^3}{1^3 \text{ m}^3} \right| = 1.64 \times 10^9 \text{ ft}^3$$

$$6) \frac{1.67 \times 10^4 \cancel{\text{in}}^2}{\cancel{\text{s}}} \left| \frac{2.54^2 \text{ cm}^2}{1^2 \cancel{\text{in}}^2} \right| \frac{60 \cancel{\text{s}}}{1 \text{ min}} = 6.5 \times 10^6 \frac{\text{cm}^2}{\text{min}}$$

$$7) \frac{16 \text{ m}^2}{1} \left| \frac{3.28^2 \text{ ft}^2}{1^2 \text{ m}^2} \right| = 172.2 \text{ ft}^2$$

$$\frac{16 \text{ m}^2}{1} \left| \frac{3.28 \text{ ft}}{1 \text{ m}} \right| \left| \frac{3.28 \text{ ft}}{1 \text{ m}} \right|$$

TI calc

EE x10

length² area

length³ volume

just³ conv. factor

square conv factor only