

NAME
CHEMISTRY
English Metric Conversions

CONVERT THE FOLLOWING

1. 125 m → _____ cm example: $\frac{125 \text{ m} \mid 100 \text{ cm}}{1 \text{ m}} = 12,500 \text{ cm}$ (hold 3 significant figures)

2. 0.26 mm → _____ Km $0.26 \text{ mm} \cdot \frac{1 \text{ Km}}{1,000,000 \text{ mm}} = 0.00000026 (2.6 \times 10^{-7}) \text{ Km}$

3. 7.5 g → _____ mg $7.5 \text{ g} \cdot \frac{1000 \text{ mg}}{1 \text{ g}} = 7500 \text{ mg}$

4. 25 dam → _____ dm $25 \text{ dam} \cdot \frac{100 \text{ dm}}{1 \text{ dam}} = 2500 \text{ dm}$

5. 1,000,000 mL → _____ KL $1,000,000 \text{ mL} \cdot \frac{1 \text{ KL}}{1,000,000 \text{ mL}} = 1 \text{ KL}$

Metric English Conversions

$2.2 \text{ lbs} = 1 \text{ kg}$

$1 \text{ inch} = 2.54 \text{ cm}$

$3.78 \text{ L} = 1 \text{ gal}$

6. 12.2 ft → _____ m example: $\frac{12.2 \text{ ft} \mid 12 \text{ in} \mid 2.54 \text{ cm} \mid 1 \text{ m}}{1 \text{ ft} \mid 1 \text{ in} \mid 100 \text{ cm}} = 3.71 \text{ m}$
(hold 3 significant figures)

ft → in → cm → m

(2 sig figs) 7. 1.5 ft → _____ Km $1.5 \text{ ft} \cdot \frac{12 \text{ in}}{1 \text{ ft}} \cdot \frac{2.54 \text{ cm}}{1 \text{ cm}} \cdot \frac{1 \text{ Km}}{100,000 \text{ cm}} = 4.5 \times 10^{-4} \text{ Km}$
(0.00045)

(2 sig figs) 8. 15 mg → _____ lbs $15 \text{ mg} \cdot \frac{1 \text{ Kg}}{1,000,000 \text{ mg}} \cdot \frac{2.2 \text{ lbs}}{1 \text{ Kg}} = 3.3 \times 10^{-5} \text{ lbs}$
(0.000033 lbs)

(3 sig figs) 9. 25.0 L → _____ tsp $25.0 \text{ L} \cdot \frac{1 \text{ gal}}{3.78 \text{ L}} \cdot \frac{8 \text{ Pints}}{1 \text{ gal}} \cdot \frac{2 \text{ Cups}}{1 \text{ Pint}} \cdot \frac{16 \text{ Tbs}}{1 \text{ Cup}} \cdot \frac{3 \text{ Teas}}{1 \text{ Tbs}} = 5079 \text{ teas}$

(2 sig figs) 10. 1.5×10^5 cups → _____ Gallons
Cups → pints → gallons
 $1.5 \times 10^5 \cdot \frac{1 \text{ Pint}}{2 \text{ cups}} \cdot \frac{1 \text{ gallon}}{8 \text{ Pints}} = 9375 \text{ gal} \rightarrow 9400 \text{ gal}$
5080 or 5.08E3

(4 sig figs) 12. 15.33 mL → _____ Kg
Not enough info
Need density mass → vol