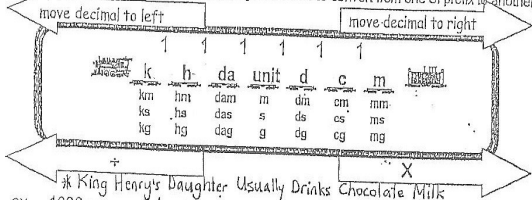


METRIC CONVERSIONS

Climb aboard the metric conversion train!

The metric conversion train is a tool that you can use to convert from one SI prefix to another.



ex. $1000 \text{ m} = \underline{1} \text{ km}$ ex. $1 \text{ g} = \underline{1000} \text{ mg}$

Since m is a base unit, we start at the 'unit'. Locate the prefix you want to convert to, in this case the 'k'. Add up the numbers between 'unit' and 'k'. In this example it is $1 + 1 + 1$ or 3. This will tell you how many spaces to move the decimal place. Since the 'k' is to the left of the 'unit', we move the decimal place 3 spaces to the left.

ex. $104.31 \text{ m} = \underline{0.10431} \text{ km}$

When converting from cubic (solids) to capacity (liquid) units, the following conversion is used:

$1 \text{ cm}^3 = 1 \text{ mL}$ e.g. $121 \text{ mL} = \underline{121} \text{ cm}^3$ $1.932 \text{ cm}^3 = \underline{1.932} \text{ mL}$

1. Complete the following conversions:

- a. $10 \text{ cm} = \underline{1} \text{ dm}$ e. $34 \text{ cm} = \underline{340} \text{ mm}$
 b. $8 \text{ m} = \underline{8000} \text{ mm}$ f. $168 \text{ mm} = \underline{0.168} \text{ m}$
 c. $24.98 \text{ m} = \underline{0.2498} \text{ hm}$ g. $4.2 \text{ dam} = \underline{42000} \text{ mm}$
 c. $40 \text{ dam} = \underline{40000} \text{ cm}$ h. $3 \text{ mm} = \underline{0.03} \text{ dm}$
 d. $98.6 \text{ m} = \underline{0.0986} \text{ km}$ i. $1000 \text{ cm} = \underline{0.01} \text{ km}$

2. Complete the following conversions:

- a. $112.33 \text{ mg} = \underline{0.11233} \text{ g}$ f. $53 \text{ ms} = \underline{0.053} \text{ s}$
 b. $0.0000345 \text{ kL} = \underline{0.345} \text{ dL}$ g. $367.23 \text{ km} = \underline{367230} \text{ m}$
 c. $795 \text{ mg} = \underline{0.795} \text{ g}$ h. $122.2 \text{ m} = \underline{0.1222} \text{ km}$
 d. $99889 \text{ mL} = \underline{998.89} \text{ dL}$ i. $43009 \text{ mL} = \underline{43009} \text{ cm}^3$
 e. $36.5 \text{ cm} = \underline{0.365} \text{ m}$ j. $2256.3 \text{ cm}^3 = \underline{2256.3} \text{ mL}$

MORE METRIC CONVERSIONS

Complete the following conversion train:



Complete the following conversions:

1. $112.33 \text{ mg} = \underline{0.11233} \text{ dag}$ 2. $0.0053 \text{ hs} = \underline{530} \text{ ms}$
 3. $0.0000345 \text{ kL} = \underline{3.45} \text{ dL}$ 4. $367.23 \text{ km} = \underline{3672300} \text{ dm}$
 5. $7.95 \text{ mg} = \underline{0.00795} \text{ g}$ 6. $122.223 \text{ dam} = \underline{1.22223} \text{ km}$
 7. $99889 \text{ mL} = \underline{0.099889} \text{ kL}$ 8. $43009393 \text{ ms} = \underline{43.009393} \text{ ks}$
 9. $36.5 \text{ cm} = \underline{0.365} \text{ m}$ 10. $2256.334 \text{ hL} = \underline{225633.4} \text{ L}$
 11. $0.000000012 \text{ kg} = \underline{0.012} \text{ mg}$ 12. $0.013 \text{ ds} = \underline{0.0013} \text{ s}$
 13. $1.002 \text{ m} = \underline{0.001002} \text{ km}$ 14. $89.334 \text{ kL} = \underline{89334} \text{ L}$
 15. $1156.34 \text{ ms} = \underline{0.00115634} \text{ ks}$ 16. $100.0 \text{ hg} = \underline{10000} \text{ g}$
 17. $1445.98 \text{ L} = \underline{1445980} \text{ mL}$ 18. $0.0045 \text{ km} = \underline{4500} \text{ mm}$
 19. $1.7 \text{ g} = \underline{170} \text{ cg}$ 20. $0.003667 \text{ mg} = \underline{0.000003667} \text{ kg}$
 21. $1.223 \text{ cm} = \underline{12.23} \text{ mm}$ 22. $345567.7 \text{ mm} = \underline{345.5677} \text{ m}$
 23. $4533.23 \text{ hm} = \underline{453.323} \text{ km}$ 24. $478955 \text{ kg} = \underline{47895500} \text{ dag}$