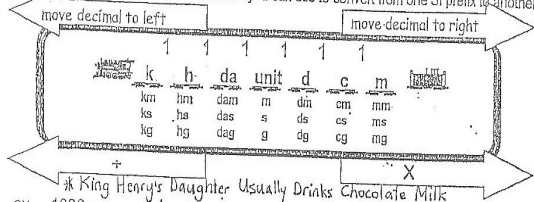


## METRIC CONVERSIONS

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.



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.  $\begin{matrix} 1 & 1 & 1 \\ k & h & da & unit \end{matrix}$  104.31 m = 0.10431 km

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

1 cm<sup>3</sup> = 1 mL      e.g. 121 mL = 121 cm<sup>3</sup>      1.932 cm<sup>3</sup> = 1.932 mL

1. Complete the following conversions:

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

2. Complete the following conversions:

- a. 112.33 mg = 0.11233 g      f. 53 ms = 0.053 s
- b. 0.0000345 kL = 0.345 dL      g. 367.23 km = 367230 m
- c. 795 mg = 0.795 g      h. 122.2 m = 0.1222 km
- d. 99889 mL = 99.889 dL      i. 43 009 mL = 43 009 cm<sup>3</sup>
- e. 36.5 cm = 0.365 m      j. 2256.3 cm<sup>3</sup> = 2256.3 mL

## MORE METRIC CONVERSIONS

Complete the following conversion train:



Complete the following conversions:

1. 112.33 mg = 0.11233 dag      2. 0.0053 hs = 530 ms
3. 0.0000345 kL = 3.45 dL      4. 367.23 km = 3672300 dm
5. 7.95 mg = 0.00795 g      6. 122.223 dam = 1.22223 km
7. 99889 mL = 0.099889 kL      8. 43009393 ms = 43.009393 ks
9. 36.5 cm = 0.365 m      10. 2256.334 hL = 225633.4 L
11. 0.00000012 kg = 0.012 mg      12. 0.013 ds = 0.0013 s
13. 1.002 m = 0.001002 km      14. 89.334 kL = 89334 L
15. 1156.34 ms = 0.00115634 ks      16. 100.0 hg = 10000 g
17. 1445.98 L = 1445980 mL      18. 0.0045 km = 4500 mm
19. 1.7 g = 170 cg      20. 0.003667 mg = 0.000000003667 kg
21. 1.223 cm = 12.23 mm      22. 345567.7 mm = 345.5677 m
23. 4533.23 hm = 453.323 km      24. 478955 kg = 47895500 dag