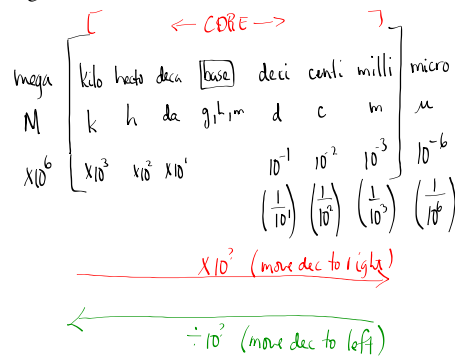


Metric Conversions



Metric Conversions

- ① move the decimal
- ② use factor labelling
- ③ use the prefix (if converting to the base unit)

Basic Skill Sheet

29. Convert 4008g to mg

① $4008 \text{ g} = 4008000 \text{ mg}$
3 dec to right.

② $x \text{ (mg)} = 4008 \text{ g} \left(\frac{1000 \text{ mg}}{1 \text{ g}} \right)$
 $x \text{ mg} = 4008000 \text{ mg}$ $\frac{4008 \times 1000}{1}$

30. Convert 48mL to L:

① $48 \text{ mL} = 0.048 \text{ L}$

② $x \text{ (L)} = 48 \text{ mL} \left(\frac{1 \text{ L}}{1000 \text{ mL}} \right)$ $\frac{48 \times 1}{1000}$
 $x \text{ L} = 0.048 \text{ L}$

③ $48 \text{ mL} = 48 \times 10^{-3} \text{ L}$
↑ $10^{-3} = 4.8 \times 10^{-2} \text{ L}$

31. Convert 239mm to cm:

① $239 \text{ mm} = 23.9 \text{ cm}$

② $x \text{ (cm)} = 239 \text{ mm} \left(\frac{1 \text{ cm}}{10 \text{ mm}} \right)$ $\frac{239 \times 1}{10}$

32. Convert 38kg to mg:

① $38 \text{ kg} = 38000000 \text{ mg}$
6 dec places.

② $x \text{ (mg)} = 38 \text{ kg} \left(\frac{1000 \text{ g}}{1 \text{ kg}} \right) \left(\frac{1000 \text{ mg}}{1 \text{ g}} \right)$ $\frac{38 \times 1000 \times 1000}{(1 \times 1)}$
 $x \text{ mg} = 38000000 \text{ mg}$