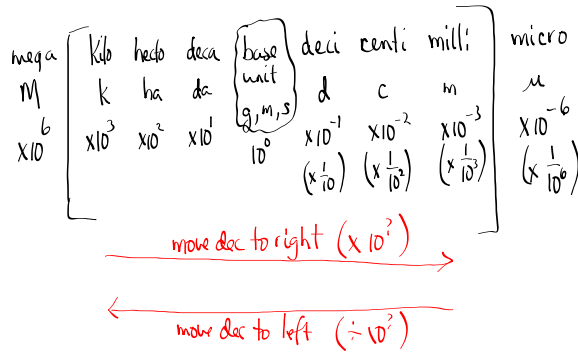


Metric Conversions



Three ways to convert:

- ① Move decimal
- ② Use the prefix if converting to base unit
- ③ factor labelling

BASIC SKILL Examples:

29.  $4008 \text{ g} = \underline{\quad?} \text{ mg}$

- ①  $4008 \text{ g} = 4008000 \text{ mg}$  ← conversion
- ③  $x \text{ (mg)} = 4008 \text{ g} \left( \frac{1000 \text{ mg}}{1 \text{ g}} \right)$

30.  $48 \text{ mL} = \underline{\quad?} \text{ L}$

- ①  $48 \text{ mL} = 0.048 \text{ L}$
- ②  $48 \text{ mL} = 48 \times 10^{-3} \text{ L} = 4.8 \times 10^{-2} \text{ L}$
- ③  $x \text{ (L)} = 48 \text{ mL} \left( \frac{1 \text{ L}}{1000 \text{ mL}} \right) = 0.048 \text{ L}$

31.  $239 \text{ mm} = \underline{\quad?} \text{ cm}$

- ①  $239 \text{ mm} = 23.9 \text{ cm}$
- ②  $x \text{ (cm)} = 239 \text{ mm} \left( \frac{1 \text{ cm}}{10 \text{ mm}} \right) = 23.9 \text{ cm}$

32.  $38 \text{ kg} = \underline{\quad?} \text{ mg}$

- ①  $38 \text{ kg} = 38000000 \text{ mg}$
- ③  $x \text{ (mg)} = 38 \text{ kg} \left( \frac{1000 \text{ g}}{1 \text{ kg}} \right) \left( \frac{1000 \text{ mg}}{1 \text{ g}} \right) = 3.8 \times 10^7 \text{ mg}$