

## Questions

## Notes

How do you  
convert kg  
to grams?

### Unit Conversions (Dimensional Analysis)

Convert 24.75 kg to grams

Answer: 24,750 grams

- 1.) identify the unit of measure you need to convert.
- 2.) identify the equality between the unit of measure you want and the unit of measure you need your answer to be.
- 3.) Set up multiplication ratios (think multiplication of fractions) where the units of measure will cancel each other out.
- 4.) Fill in the appropriate numbers from your equality.
- 5.) Multiply your fractions straight across canceling out units accordingly.

Scientific Notation (also known as standard form) involves writing a given number between 1 and 10, multiplied by a power of 10. i.e.  $a \cdot 10^b$  where  $1 \leq a < 10$ .

Examples:

$$500,000 \approx 5 \cdot 10^5 \quad .000095 \approx 9.5 \cdot 10^{-5}$$

$$10 \approx 1 \cdot 10^1$$

Summary: It's important to compare measures using the same type of unit because you need to know whether you'll be converting things in your future and how you do it, or what you're working with.