Quantitative Problem Solving

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Sample Exercise

- How old are you in seconds?

Quantitative Problem Solving

Dimensional Analysis

- Steps:
  - 1. Determine a goal
  - 2. Determine a starting point
  - 3. Draw a line
  - 4. Apply needed conversions to arrive at your goal
    - Conversion factors must be a fraction equal to 1
    - Units must cancel to leave desired units as answer
  - 5. Solve for your goal
    - Multiply by the top
    - Divide by the bottom
  - 6. Round your answer to the number of sig figs in your least accurate factor

Quantitative Problem Solving

Sample Exercise

- If Brian weighs 125 lbs, what is his mass in grams?

Quantitative Problem Solving

Sample Exercise

- 1.2 x 10^8 cm is how many miles?

Dimensional Analysis Continued

Complex Conversions

- A car is travel at 72 miles per hour. What is its speed in meters per second