

Prep for Basic Chemistry: Competency 2 Practice

Fill in your answer choice:

- Dimensional analysis* is a
 - ratio of equivalent values used to express the same quantity in different units
 - technique of solving problems using units of measurement
 - difference between the accepted and experimental values
- Precision*
 - is a standard of measurement; a single undivided whole
 - refers to how close measured values are to one another
 - sets the freezing point of water at 273.15 K and the boiling point of water at 373.15 K ($K = ^\circ C + 273.15$)
- All of the following measurements have five significant figures EXCEPT _____.
 - 30.003 mL
 - 33.003 mL
 - 0.00333 mm
 - 0.33300 mg
 - 33003 L
- When dividing 0.403 m by 50.04 s, your answer should be rounded to a value that includes three significant figures.
 - True
 - False
- The measurement 240 L has 3 significant figures.
 - True
 - False
- A zero appearing between nonzero digits in a measurement is not significant.
 - True
 - False
- The measurement 0.00005 mg has one significant figure.
 - True
 - False
- When adding 59.0 Kg plus 5.90 Kg plus 5.004 Kg, your answer should be rounded to a value that includes two significant figures.
 - True
 - False
- $0.006 \text{ m} + 9.12 \text{ m} =$ _____
- $8.80 \text{ L} - 7.7 \text{ L} =$ _____
- $9.00 \text{ Kg} \times 0.90 =$ _____
- $7.4000 \text{ cm} \div 0.024 =$ _____

