

GENERAL CHEMISTRY STANDARD 1.9

1.9: Round numbers to the correct number of significant figures

ROUNDING NUMBERS

- When dealing with quantitative measurements, remember:
 - Do not change the number of significant figures in the measurement
 - Do not change the unit of the measurement without a conversion
 - Arithmetic operations can never change the number of significant figures in a measurement because arithmetic can't change the precision of the measurement
- When rounding measurements, count significant digits from the left until getting the number of significant digits to match the measurement
 - If the next number immediately to the right is five or larger, then round the final significant digit up one unit (furthest to the right)
 - If the next number immediately to the right is four or smaller, then do not change the final significant digit (furthest to the right)

ROUNDING NUMBERS EXAMPLES

Round to 4 Significant Digits

2.5305 m

2.531 m

Round to 2 Significant Digits

0.0252 cm

0.025 cm

Round to 3 Significant Digits

103.6 g

104 g

Round to 6 Significant Digits

1350.08500 K

1350.09 K