

Chemistry: Chapter 1 Significant Figures Worksheet

Count the number of sig. figs in the following measurements.

- | | | | |
|---------------------------|-------|---------------|-------|
| 1) 67.05 mL | _____ | 2) 0.003 kg | _____ |
| 3) 45,000 L | _____ | 4) 54.70 cm | _____ |
| 5) 194.3 m ² | _____ | 6) 230. mm | _____ |
| 7) 29,037 cm ² | _____ | 8) 0.08200 mg | _____ |
| 9) 500 g | _____ | 10) 2 inches | _____ |

Solve the following arithmetic problems and give the answers with the correct number of sig. figs.

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|---|-------------------------------|
| 11) 74.862 - 3.34 | 12) 6.224 + 2.5392 + 4.2 |
| 13) 5.635 × 2 | 14) 23.552/3.0 |
| 15) $\frac{6.93 - 2.0}{4.100} + \frac{1.90 \times 2.0}{1.26}$ | 16) (64.78)(92) + (50.)(75.2) |

Reminders of Sig. Fig. Rules

<u>Count Rule 1:</u>	Non-zero digits always count
<u>Count Rule 2:</u>	In a number less than 1, leading zeroes never count
<u>Count Rule 3:</u>	Zeroes between non-zero digits always count
<u>Count Rule 4:</u>	Zeroes at the end of decimal digits always count
<u>Count Rule 5:</u>	Zeroes in a whole number only count if there's a decimal after them or a bar above them.

<u>Operation Rule 1:</u>	Addition & Subtraction: Restricted by the fewest number of decimal places
<u>Operation Rule 2:</u>	Multiplication & Division: Restricted by the fewest number of sig. figures