

**Significant Figures (Sig.Fig.) and Dimensional Analysis (DA) Worksheet**  
From Bauck, ChemFiesta.com and ScienceSpot.net

**SIG.FIGS.**

PART 1: How many significant figures are in each of the following numbers?

- |             |                            |
|-------------|----------------------------|
| 1) 5.40     | 8) $1.2 \times 10^3$       |
| 2) 210      | 9) 0.00120                 |
| 3) 801.5    | 10) 0.0102                 |
| 4) 1000     | 11) $9.010 \times 10^{-6}$ |
| 5) 101.0100 | 12) 2370.0                 |
| 6) -311     | 13) 50                     |
| 7) 50.0     | 14) 606                    |
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PART 2: Calculate the answer to the correct number of sig.figs., using the rules.

- 15)  $13.9 + 98.08?$
  - 16)  $2.0987 \times 2345$
  - 17)  $2.897 \times 10^3 + 2.09 \times 10^4$
  - 18)  $12.09 / 12.8$
  - 19)  $12.039 / 34.9$
  - 20)  $12.098 + 13.09$
  - 21)  $12.98 - 6.098$
  - 22)  $(2.5 \times 10^{23}) \times (2.45 \times 10^{25})$
  - 23)  $13.9 - 13.70$
  - 24)  $13.98 \times 24.09$
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PART 3: Short answers

- 25) Why are significant figures important when taking data in the laboratory?
  - 26) Why are significant figures *not* important when solving problems in your math class?
  - 27) Using two different instruments, I measured the length of my foot to be 27 centimeters and 27.00 centimeters. Explain the difference between these two measurements.
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DIMENSIONAL ANALYSIS on the other side →