

Chem 30 **Significant Figures 2 Ver A** Name _____

1. How many significant figures are in each of the following? Circle the correct answer.

- | | | | | |
|----------------------------|---|---|---|---|
| a. 339.300 | 3 | 4 | 5 | 6 |
| b. 45500 | 2 | 3 | 4 | 5 |
| c. 0.08099 | 3 | 4 | 5 | 6 |
| d. 1.0400×10^{-3} | 3 | 4 | 5 | 6 |
| e. 0.0810 | 2 | 3 | 4 | 5 |

3. Round each of the following to 3 significant figures. **Circle** the correct answer.

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|------------------------|--------------------|--------------------|-------|--------|
| a. 3.14159 | 3.14 | 3.15 | 3.142 | 3.1 |
| b. 0.08206 | 0.0820 | 0.0821 | 0.082 | 821 |
| c. 1.0030 | 1.00 | 1 | 1.01 | 1.03 |
| d. 15.994 | 159 | 16.0 | 160 | 16.000 |
| e. 1.626×10^2 | 1.62×10^2 | 1.63×10^2 | 1.63 | 162600 |
| f. 12878 | 128 | 12800 | 129 | 12900 |

4. Perform each of the following calculations. **Round** each correctly.

- a. $12.0/0.205 =$ _____
- b. $\frac{(5.4 \times 10^{-2})}{(4.00 \times 10^{21})(0.03)} =$ _____
- c. $(0.0340)(4500) =$ _____
- d. $(88.5)(5.6000 \times 10^{11}) =$ _____
- e. $\frac{(650000)(0.000155)}{30000} =$ _____
- f. $(9.000 \times 10^3)(3.0700 \times 10^{12}) =$ _____
- g. $\frac{(6.500)(0.045)}{(32.7)(217)} =$ _____
- h. $3.20 + 14.19 =$ _____
- i. $0.0349 + 1.02 =$ _____