

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

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

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

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

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

a. $12.0 / 0.205 = \underline{58.5}$

b. $\frac{(5.4 \times 10^{-2})}{(4.00 \times 10^{21})(0.03)} = \underline{5 \times 10^{-18}}$

c. $(0.0340)(4500) = \underline{150}$

d. $(88.5)(5.6000 \times 10^{11}) = \underline{4.96 \times 10^{13}}$

e. $\frac{650000}{30000} (0.000155) = \underline{0.003}$

f. $(9.000 \times 10^3)(3.0700 \times 10^{12}) = \underline{2.763 \times 10^{16}}$

g. $(6.500)(0.045) = \underline{0.000041}$ 4.1×10^{-5}

h. $3.20 + 14.19 = \underline{17.39}$

i. $0.0349 + 1.02 = \underline{1.05}$

mult/div/
d. vide
sig figs!

add/subtract
dec.
places