

Significant Figures 1

Name _____

1. **Circle** the correct scientific notation representation of each of the following numbers:

<i>number</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>
a. 0.08206	8.206×10^{-2}	0.08206	8206×10^{-2}	8.206×10^2
b. 150	1.5×10^2	150	15×10^1	1.5×10^{-2}
c. 8314	8314	8.31×10^{-3}	8.314×10^3	83.14×10^2
d. 22.4	22.4	224×10^1	2.24×10^{-1}	2.24×10^1

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

a. 19.300	2	3	4	5
b. 2500	2	3	4	5
c. 0.08099	3	4	5	6
d. 1.400×10^{-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.

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 to the correct number of digits.

a. $12.0 / 0.205 =$ _____

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

c. $(0.0340)(4500) =$ _____

d. $3.20 + 14.19 =$ _____

e. $0.0349 + 1.02 =$ _____