Name _____ Period _____ Date _____

Significant Figures

I. *Indicate the number of significant figures*

a. _____	45.0	n. _____	23.30
b. _____	1600	o. _____	0.5
c. _____	4803	p. _____	2000.16
d. _____	3.4×10^{7}	q. _____	8.701
e. _____	0.8500	r. _____	80,005.32
f. _____	0.0012	s. _____	704,000
g. _____	63,000	t. _____	0.005430
h. _____	23.30	u. _____	1843.03
i. _____	0.50	v. _____	2000.12
j. _____	365	w. _____	3.65
k. _____	3.650×10^{-4}	x. _____	0.0001010450
l. _____	6000	y. _____	6.000
m. _____	0.00600	z. _____	6.00×10^{6}

II. *Solve the following problems using addition/subtraction and multiplication/division rules. Write the calculator answer first and then the answer with the correct number of significant figures. Use units if stated in the problem.*

a. 463.66 + 29.2 + 0.17 = _____ _____

b. 426.66 – 39.2 = _____ _____

c. 3.414 s = 10.02 s + 58.325 s = _____ _____

d. 2104 m – 463.09 m = _____ _____

e. 85 – 45.23 = _____ _____

f. 75.004 – 83.2 = _____ _____

g. 2.6 x 42.2 = _____ _____

h. $(3.5)^{3}$ = _____ _____

i. 45.00 x 3.00 = _____ _____

j. 65.6 x 0.041 x 325 = _____ _____

III. *Simplify and write the answers in scientific notation with the correct number of significant digits expressed.*

a. $10^{3} \times 10^{-2}$ = _____ _____

b. $10^{-2} \times 10^{5}$ = _____ _____

c. $10^{-6} / 10^{-4}$ = _____ _____

d. $(5.0 \times 10^{-5})(4.00 \times 10^{-3})$ = _____ _____

e. $(3.5 \times 10^{4})(2.0 \times 10^{-3})$ = _____ _____