

Name _____ Period _____ Date _____

Exponential Notation

I. *Express the following in scientific notation* II. *Expand these numbers*

a. _____ 505

b. _____ 2 347

c. _____ 109 786

d. _____ 245

e. _____ 6 000 000

f. _____ 8 923 000

g. _____ 48 000

h. _____ 200

i. _____ 10 000

j. _____ 0.009 8

k. _____ 0.000 007 08

l. _____ 0.78

m. _____ 0.000 456

n. _____ 456 000

o. _____ 456 100

p. _____ 456 110

q. _____ 456 111

a. _____ 2.45×10^3

b. _____ 89.23×10^5

c. _____ 423.08×10^3

d. _____ 9.8×10^{-3}

e. _____ 7.8×10^{-1}

f. _____ 3×10^{-5}

g. _____ 7.08×10^{-6}

h. _____ 2×10^{-3}

i. _____ 2.00×10^{-3}

j. _____ 245×10^{-1}

k. _____ 245×10^{-2}

l. _____ 245×10^{-3}

m. _____ 245×10^{-4}

n. _____ 245×10^1

o. _____ 245×10^2

p. _____ 245×10^3

q. _____ 245×10^4

II. *Solve the following problems and express in scientific notation with the correct number of significant figures. Show the calculator answer first and then the ChemMath answer!*

a. $6 \times 8 =$ _____

b. $60 \times 80 =$ _____

c. $600 \times 800 =$ _____

d. $6\,000 \times 800 =$ _____

e. $6 \times 800 =$ _____

f. $60 \times 800 =$ _____

g. $0.006 \times 0.800 =$ _____

h. $6.00 \times 8.00 =$ _____

i. $6.0 \times 0.080 =$ _____

j. $0.060 \times 0.008 =$ _____

k. $400.000 \times 650 =$ _____

l. $400.002 \times 650 =$ _____

