# Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hour: \_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

# Chemistry: *Significant Figures*

1. Write the number of sig figs that are in each of the following quantities. Also, underline the sig figs.

a. 6.751 g f. 30.07 L k. 54.52 mL

b. 0.157 M g. 0.106 g/cm3 l. 0.1209 moles

c. 280 mL h. 0.0067 kPa m. 2,690 m

d. 2500 moles i. 0.0230 cm3 n. 4,030 cm

e. 0.070 g j. 0.002560 moles o. 6,352,000 g

2. For the problems below, start with NO calculator.

* First, write the correct UNIT that will appear on the answer.
* Then, for addition/subtraction probs, state the PLACE VALUE to which you would round each answer;

for multiplication/division probs, state HOW MANY sig figs the answer should have.

a. 16.5 cm + 8 cm + 4.37 cm

b. 752.3 mm Hg - 23.08 mm Hg

c. 39.95 g

22.4 L

d. 13.251 moles + 10.006 moles + 9.63 moles

e. 16.5 cm (8 cm) (4.37 cm)

f. 2.36 mL + 3.38 mL + 0.355 mL + 2 mL

g. 57.3 g Ca (1.000 mol Ca) (3.000 mol Ni) (58.70 g Ni)

(40.08 g Ca) (2.000 mol Ca) (1.000 mol Ni)

h. 0.0853 g + 0.0547 g - 0.037 g - 0.00387 g

i. 13 L oxygen (1.00 mol oxygen) (1.00 mol chromium) (52.0 g chromium)

(22.4 L oxygen) (4.00 mol oxygen) (1.00 mol chromium)

3. Now, use a calculator and correctly report each answer above.