

Name \_\_\_\_\_

Date \_\_\_\_\_

Due Date \_\_\_\_\_

Mark \_\_\_\_\_/24

**Correct and Hand in Again by** \_\_\_\_\_**Chemistry 11****Hand In Assignment # 4 – Mass, Mole, Volume Conversions****This Assignment will be marked and you are allowed to do one set of corrections.**

1. Make the following conversions, clearly showing your steps. Include proper units in all of your work and in your answer. Use your periodic table and express all molar masses to 1 decimal place.

a. 137.5 grams of  $\text{PCl}_3 = ?$  moles (2 marks)

Answer \_\_\_\_\_

b. 0.00256 moles of  $\text{SrCrO}_4 = ?$  grams (2 marks)

Answer \_\_\_\_\_

c. 92.288 L of  $\text{NO}_2$  at STP = ? moles (2 marks)

Answer \_\_\_\_\_

d.  $3.2 \times 10^2$  moles of  $\text{SO}_3$  gas at STP = ? L (2 marks)

Answer \_\_\_\_\_

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e. 806.895 g of  $\text{PCl}_5$  gas = ? L (STP) (4 marks)

Answer \_\_\_\_\_

f. 3136 mL of  $\text{CH}_4$  gas at STP = ? g (4 marks)

Answer \_\_\_\_\_

g. 2.25 kg of nitrogen gas = ? L (STP) (4 marks)

Answer \_\_\_\_\_

h. 0.00285 kg of  $\text{C}_2\text{H}_6(\text{g})$  = ? mL (4 marks)

Answer \_\_\_\_\_