

Name _____

Date _____

Due Date _____

Mark _____ / 31

Correct and Hand in Again by _____**Chemistry 11****Hand In Assignment # 10 – Stoichiometry Problems**

This Assignment will be marked and you are allowed to do one set of corrections. Show all of your work, including units in your work and answers.

1. Given the following balanced equation, answer the questions following it:



- a. If 2.50 moles of Na are reacted, how many moles of ZnI₂ will be consumed? (1 mark)

Answer _____

- b. In order to produce 0.350 moles of NaI, how many moles of ZnI₂ would be consumed? (1 mark)

Answer _____

- c. If you needed to produce 35.976 g of NaI, how many moles of Na would you need to start with? (2 marks)

Answer _____

- d. If you completely react 526.68 g of ZnI₂, what mass of NaZn₄ will be produced? (3 marks)

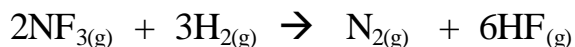
Answer _____

- e. In order to produce 692.538 g of NaI, what mass of ZnI₂ is required? (3 marks)

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Answer _____

2. Given the following balanced equation, answer the questions following it:



- a. If 15.008 L of hydrogen gas are consumed at STP, how many moles of HF would be formed?(3 marks)

Answer _____

- b. In order to produce 3.50 grams of N₂, how many Litres of NF₃ at STP would be required? (3 marks)

Answer _____

- c. If 188.608 L of N₂ are formed at STP, how many Litres of HF would be produced at the same time? (3 marks)

Answer _____

- d. If 482.8 g of NF₃ are consumed, how many molecules of H₂ would be consumed at the same time? (3 marks)

Answer _____

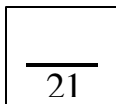
- e. If 2.7692×10^{23} molecules of HF are produced, what volume of N₂ would be produced at STP? (3 marks)

Answer _____

- f. What mass of H₂ would be required to produce 282.24 L of HF at STP? (3 marks)

Answer _____

- g. The consumption of 1.12 L of H₂ at STP would result in the formation of how many moles of HF? (3 marks)



Answer _____