

A) 6.00 moles

? moles

B) ? moles

183.5 moles

C) 300. g

? g

$$A) \left(\frac{6.00 \text{ mole N}_2}{1} \right) \left(\frac{2 \text{ mole NH}_3}{1 \text{ mole N}_2} \right) = \boxed{12.0 \text{ moles NH}_3}$$

$$B) \left(\frac{183.5 \text{ moles NH}_3}{1} \right) \left(\frac{3 \text{ moles H}_2}{2 \text{ moles NH}_3} \right) = \boxed{275.3 \text{ moles H}_2}$$

$$C) \left(\frac{300. \text{ g H}_2}{1} \right) \left(\frac{1 \text{ mole H}_2}{2.0 \text{ g H}_2} \right) \left(\frac{2 \text{ mole NH}_3}{3 \text{ mole H}_2} \right) \left(\frac{17.0 \text{ g NH}_3}{1 \text{ mole NH}_3} \right) = \boxed{1700 \text{ g NH}_3}$$



A) 17.0 moles

? moles

B) ? moles

1.67 moles

C) 47.9 g

? g

$$A) \left(\frac{17.0 \text{ moles BaCl}_2}{1} \right) \left(\frac{6 \text{ mole KCl}}{3 \text{ mole BaCl}_2} \right) = \boxed{34.0 \text{ moles KCl}}$$

$$B) \left(\frac{1.67 \text{ mole Ba}_3(\text{PO}_4)_2}{1} \right) \left(\frac{2 \text{ mole K}_3\text{PO}_4}{1 \text{ mole Ba}_3(\text{PO}_4)_2} \right) = \boxed{3.34 \text{ mole K}_3\text{PO}_4}$$

$$C) \left(\frac{47.9 \text{ g BaCl}_2}{1} \right) \left(\frac{1 \text{ mole BaCl}_2}{208.3 \text{ g BaCl}_2} \right) \left(\frac{6 \text{ mole KCl}}{3 \text{ mole BaCl}_2} \right) \left(\frac{74.6 \text{ g KCl}}{1 \text{ mole KCl}} \right) = \boxed{34.3 \text{ g KCl}}$$

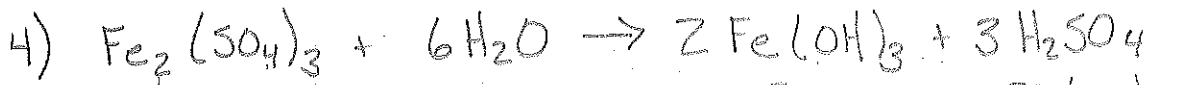


- A) 16.5 mole ? mole
 B) ? mole 94.5 mole
 C) 38.9g ?g

$$A) \left(\frac{16.5 \text{ mole HCl}}{1} \right) \left(\frac{3 \text{ mole H}_2}{6 \text{ mole HCl}} \right) = \boxed{8.25 \text{ mole H}_2}$$

$$B) \left(\frac{94.5 \text{ mole AlCl}_3}{1} \right) \left(\frac{6 \text{ mole HCl}}{2 \text{ mole AlCl}_3} \right) = \boxed{284 \text{ mole HCl}}$$

$$C) \left(\frac{38.9 \text{ g Al}}{1} \right) \left(\frac{1 \text{ mole Al}}{27.0 \text{ g Al}} \right) \left(\frac{2 \text{ mole AlCl}_3}{2 \text{ mole Al}} \right) \left(\frac{133.5 \text{ g AlCl}_3}{1 \text{ mole AlCl}_3} \right) = \boxed{192 \text{ g AlCl}_3}$$

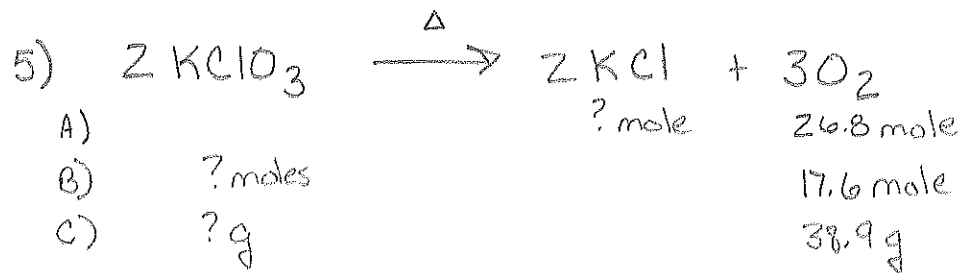


- A) ? moles 33.4 moles
 B) 23.4 mole ? mole
 C) ?g 224.9g

$$A) \left(\frac{33.4 \text{ mole H}_2\text{SO}_4}{1} \right) \left(\frac{2 \text{ mole Fe}(\text{OH})_3}{3 \text{ mole H}_2\text{SO}_4} \right) = \boxed{22.3 \text{ mole Fe}(\text{OH})_3}$$

$$B) \left(\frac{23.4 \text{ mole Fe}_2(\text{SO}_4)_3}{1} \right) \left(\frac{6 \text{ mole H}_2\text{O}}{1 \text{ mole Fe}_2(\text{SO}_4)_3} \right) = \boxed{140. \text{ mole H}_2\text{O}}$$

$$C) \left(\frac{224.9 \text{ g Fe}(\text{OH})_3}{1} \right) \left(\frac{1 \text{ mole Fe}(\text{OH})_3}{106.8 \text{ g Fe}(\text{OH})_3} \right) \left(\frac{1 \text{ mole Fe}_2(\text{SO}_4)_3}{2 \text{ mole Fe}(\text{OH})_3} \right) \left(\frac{400.1 \text{ g Fe}_2(\text{SO}_4)_3}{1 \text{ mole Fe}_2(\text{SO}_4)_3} \right) = \boxed{421.3 \text{ g Fe}_2(\text{SO}_4)_3}$$



$$a.) \left(\frac{26.8 \text{ mole O}_2}{1} \right) \left(\frac{2 \text{ mole KCl}}{3 \text{ mole O}_2} \right) = \boxed{17.9 \text{ mole KCl}}$$

$$b.) \left(\frac{17.6 \text{ mole O}_2}{1} \right) \left(\frac{2 \text{ mole KClO}_3}{3 \text{ mole O}_2} \right) = \boxed{11.7 \text{ mole KClO}_3}$$

$$c.) \left(\frac{38.9 \text{ g O}_2}{1} \right) \left(\frac{1 \text{ mole O}_2}{32.0 \text{ g O}_2} \right) \left(\frac{2 \text{ mole KClO}_3}{3 \text{ mole O}_2} \right) \left(\frac{122.6 \text{ g KClO}_3}{1 \text{ mole KClO}_3} \right)$$

$$= \boxed{99.4 \text{ g KClO}_3}$$