| Stoichiometry Practice | Name: Hour: |
|---|---|
| Balance the following equations, then answer the q | uestion that follows. |
| 1. $F_{Z(g)}$ + AlC($g_{Z(g)}$) AlF($g_{Z(g)}$) + AlF($g_{Z(g)}$) | Cl _{2(g)} 4 moles of AIF ₃ ? |
| | |
| | |
| 2 (NH ₄) ₂ Cr ₂ O ₇ | + N ₂ of (NH-)-Cr-O- are decomposed? |
| , lost months of G.Zog and produced minutes of months | |
| • | |
| | |
| 3 H ₂ SO ₄ + NaOH H ₂ O + How many moles of NaOH are needed to neutralize 5 mol | Na ₂ SO ₄ es of H ₂ SO ₄ ? |
| | · |
| | |
| 4C ₀ H ₅ +O ₂ CO ₂ +H ₂ How many moles of CO ₂ gas are produced when 0.5 moles | O s of hanzene. C-Hs. are burned? |
| How many motes of CO2 gas are produced witer on mote | |
| | |
| | |
| 5Al ₂ (SO ₄) ₃ +BaCl ₂ BaSO ₄ + How many moles of BaCl ₂ are needed to produce 4.1 moles | AIU3 es of BaSO4? |

Mole-Mass Stoichiometry Practice

Name:

Hour:

- 1. $3 F_{Z(q)} + 2 AlCl_{3(qq)} \rightarrow 2 AlF_{3(qq)} + 3 Cl_{2(q)}$ How many moles of fluorine gas are needed to produce 50 g of AlF₃?
- 2. $(NH_4)_2Cr_2O_7 \rightarrow Cr_2O_3 + 4 H_2O + N_2$ How many grams of Cr_2O_3 are produced when 1.2 moles of $(NH_4)_2Cr_2O_7$ are decomposed?

3. H₂SO₄ + 2 NaOH → 2 H₂O + Na₂SO₄ How many moles of NaOH are needed to neutralize 520 grams of H₂SO₄?

4. 2 C₆H₆ + 15·O₂ \rightarrow 12 CO₂ + 6 H₂O How many moles of CO₂ gas are produced when 85 grams of benzene, C₆H₆, are burned?

5. $Al_2(SO_4)_3 + 3 BaCl_2 \rightarrow 3 BaSO_4 + 2 AlCl_3$ How many grams of BaCl_2 are needed to produce 4.1 moles of BaSO_4?

Mass-Mass Stoichlometry Practice

Name:

Hour:

1. $3 \cdot F_{2(g)} + 2 \cdot AlCl_{3(eq)} \rightarrow 2 \cdot AlF_{3(eq)} + 3 \cdot Cl_{2(g)}$ How many grams of fluorine gas are needed to produce 100.00g of AlF₃?

2. $(NH_4)_2Cr_2O_7 \Rightarrow Cr_2O_3 + 4 H_2O + N_2$ How many grams of Cr_2O_3 are produced when 25.00g of $(NH_4)_2Cr_2O_7$ is decomposed?

3. $H_2SO_4 + 2 NaOH \rightarrow 2 H_2O + Na_2SO_4$ How many grams of NaOH are needed to neutralize 15.00g of H_2SO_4 ?

4. 2 C_8H_5 + 15 O_2 \Rightarrow 12 CO_2 + 6 H_2O How many grams of CO_2 gas can be produced of 156.24g of benzene, C_6H_6 , is burned?

5. Al₂(SO₄)₃ + 3 BaCl₂ → 3 BaSO₄ + 2 AlCl₃ How many grams of BaCl₂ are needed to produce 25.00g of BaSO₄? Mole-Particle Stoichiometry Practice

Name:

Hour:

1. $3 F_{2(q)} + 2 AiCl_{3(pq)} \rightarrow 2 AiF_{3(pq)} + 3 Cl_{2(q)}$ How many moles of fluorine gas are needed to produce 1.5 x 10²⁴ molecules of Cl₂?

2. $(NH_4)_2Cr_2O_7 \rightarrow Cr_2O_3 + 4 H_2O + N_2$ How many molecules of H_2O are produced when 7.8 x 10^{23} formula units of $(NH_4)_2Cr_2O_7$ are decomposed?

3. $H_2SO_4 + 2 NaOH \rightarrow 2 H_2O + Na_2SO_4$ How many moles of NaOH are needed to neutralize 5.20 x 10²⁴ particles of H_2SO_4 ?

4. 2 C₆H₆ + 15 O₂ \rightarrow 12 CO₂ + 6 H₂O How many molecules of CO₂ gas are produced when 8.5 moles of benzene, C₆H₆, are burned?

5. Al₂(SO₄)₃ + 3 BaCl₂ \Rightarrow 3 BaSO₄ + 2 AlCl₃ How many grams of BaCl₂ are needed to produce 4.1 x 10²³ particles of BaSO₄?