| Name:   | Date:  | HURBAN<br>HASSEMBLY  |
|---|--|--|
| Chemistry ~ Ms. Hart Class: Anions  | or Cations   | SCHOOL<br>FOR CRIMINAL<br>II IS TICE   |
| <u>6.7 – Mole and Unit 6 P</u>  | <u>ractice</u>   | JOSTICE  |
| I. Given the balanced equation representing a reaction:  Mg(s) + Ni <sup>2+(</sup> aq) Mg <sup>2+(</sup> aq) + Ni(s)  What is the total number of moles of electrons lost by Mg(s) when 2.0 moles of electrons are gained by Ni <sup>2+(</sup> aq)?  (1) 1.0 mol (2) 2.0 mol (3) 3.0 mol (4) 4.0 mol  2. Given the balanced equation representing a reaction:  C3H8(g) +5O2(g) 3CO2(g) + 4H2O(g)  What is the total number of moles of O2(g) required for the complete combustion of 1.5 moles of C3H8(g)?  (1) .30 mol (2) 1.5 mol (3) 4.5 mol (4) 7.5 mol | 3. Given the balance reaction:  2CO(g) + O2(g) 2CO  What is the mole ration?  (1) 1:1 (2) 1:2 (3) 2:1 (4) 3:2  4. Given the balance reaction between  C3 H <sub>8</sub> + 5  According to  | ed equation representing the a propane and oxygen: $O_2 \rightarrow 3 CO_2 + 4 H_2O$ this equation, which ratio of opane is correct? $\frac{2}{1_8}$ $\frac{2}{1_8}$ $\frac{2}{1_8}$ $\frac{2}{1_8}$ $\frac{2}{1_8}$ $\frac{2}{1_8}$ |
| Name:   | Date:  | EURBAN<br>EASSEMBLY  |
| <b>Chemistry</b> ~ Ms. Hart Class: Anions   | or Cations   | SCHOOL<br>FOR CRIMINAL<br>II IS TICE   |
| <u>6.7 – Mole and Unit 6 P</u>  | <u>ractice</u>   | JOSTICE  |
| 1. Given the balanced equation representing a reaction:  Mg(s) + Ni <sup>2+(</sup> aq) Mg <sup>2+(</sup> aq) + Ni(s)  What is the total number of moles of electrons lost by Mg(s) when 2.0 moles of electrons are gained by Ni <sup>2+(</sup> aq)?  (1) 1.0 mol (2) 2.0 mol (3) 3.0 mol (4) 4.0 mol  2. Given the balanced equation representing a reaction:  C3H8(g) +5O2(g) 3CO2(g) + 4H2O(g)  What is the total number of moles of O2(g) required for the complete combustion of 1.5 moles of C3H8(g)?  (1) .30 mol (2) 1.5 mol (3) 4.5 mol (4) 7.5 mol | reaction: $2\text{CO(g)} + \text{O2(g)} \text{ 2CO}$ What is the mole ration? $(1) \text{ 1:1}$ $(2) \text{ 1:2}$ $(3) \text{ 2:1}$ $(4) \text{ 3:2}$ 4. Given the balance reaction between $\text{C}_3 \text{H}_8 + 5$ According to | ed equation representing the a propane and oxygen: $O_2 \rightarrow 3 CO_2 + 4 H_2O$ this equation, which ratio of opane is correct?   |

|                |  | (1) CH2   |
|----------------|--|---|
| 5.             | Given the unbalanced equation:   | (2) C4H6  |
|                | $\_$ Fe <sub>2</sub> O <sub>3</sub> + $\_$ CO $\rightarrow$ $\_$ Fe + $\_$ (   | (3) C4H8  |
|                | When the equation is correctly balanced using  | (4) C8H4  |
|                | the smallest whole-number coefficients, what is  | 10. What is the gram-formula mass of (NH4)3PO4?   |
|                | the coefficient of CO?   | (1) 112 g/mol   |
|                | (1) 1  | (2) 121 g/mol   |
|                | (2) 2  | (3) 149 g/mol   |
|                | (3) 3  | (4) 242 g/mol   |
|                | (4) 4  | 11. The molar mass of Ba(OH)2 is  |
| 6.             | What is the total mass of 2.0 moles of H2(g)?  | (1) 154.3 g   |
|                | (1) 1.0 g  | (2) 155.3 g   |
|                | (2) 0.0 g  | (3) 171.3 g   |
|                | (3) 2.0 g  | (4) 308.6 g   |
|                | (4) 1.5 g  | 12. What is the percent composition by mass of  |
| 7.             | What is the mass in grams of 2.0 moles of NO2?   | sulfur in the compound MgSO4 (gram-formula  |
|                | (1) 92   | mass = 120. grams per mole)?  |
|                | (2) 60.  | (1) 20%   |
|                | (3) 46   | (2) 27%   |
| _              | (4) 30.  | (3) 46%   |
| 8.             | The total number of moles represented by 20  | (4) 53%   |
|                | grams of CaCO3 is  | 13. Given the balanced equation representing a  |
|                | (1) 1  | reaction:   |
|                | (2) 2  | H+(aq) + OH-(aq) H2O() + 55.8 kJ In this reaction there is consequation of  |
|                | (3) 0.1  | In this reaction there is conservation of   |
| _              | (4) 0.2  | (1) mass, only  |
| 9.             | A substance has an empirical formula of CH2  | (2) mass and charge, only   |
|                | and a molar mass of 56 grams per mole. The   | (3) mass and energy, only   |
|                | molecular formula for this compound is   | (4) mass, charge, and energy  |
|                |  |   |
| 5.             | Given the unbalanced equation:   | (2) C4H6 (3) C4H8 (4) C8H4 10. What is the gram-formula mass of (NH4)3PO4?  |
| 5.             | Fe $_2$ O $_3$ + CO $\rightarrow$ Fe + ( When the equation is correctly balanced using the smallest whole-number coefficients, what is   | <ul><li>(3) C4H8</li><li>(4) C8H4</li><li>10. What is the gram-formula mass of (NH4)3PO4?</li></ul>   |
| 5.             | Fe $_2$ O $_3$ + CO $\rightarrow$ Fe + ( When the equation is correctly balanced using the smallest whole-number coefficients, what is the coefficient of CO?  | <ul> <li>(3) C4H8</li> <li>(4) C8H4</li> <li>10. What is the gram-formula mass of (NH4)3PO4?</li> <li>(1) 112 g/mol</li> </ul>  |
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| 6.             | When the equation is correctly balanced using the smallest whole-number coefficients, what is the coefficient of CO?  (1) 1 (2) 2 (3) 3 (4) 4 What is the total mass of 2.0 moles of H2(g)? (1) 1.0 g (2) 0.0 g (3) 2.0 g (4) 1.5 g What is the mass in grams of 2.0 moles of NO2? (1) 92 (2) 60. (3) 46 | (3) C4H8 (4) C8H4  10. What is the gram-formula mass of (NH4)3PO4? (1) 112 g/mol (2) 121 g/mol (3) 149 g/mol (4) 242 g/mol  11. The molar mass of Ba(OH)2 is (1) 154.3 g (2) 155.3 g (3) 171.3 g (4) 308.6 g  12. What is the percent composition by mass of sulfur in the compound MgSO4 (gram-formula mass = 120. grams per mole)? (1) 20% (2) 27%  |
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