Year 11 Chemistry Checkup NAME_____

Equations and Calculations

1. For each reaction, write:
   (i) A chemical equation
   (ii) An ionic equation
   (iii) A balanced net ionic equation

   (a) copper(III) iodide solution + mercury bromide solution

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   (b) ammonium carbonate solution + aluminium sulphate solution

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2. Consider a reaction in which 13.5 g of Mg reacted with excess O_2, according to the reaction below:

   $Mg + O_2 \rightarrow MgO$

   (a) Balance the equation above.

   (b) Calculate the number of moles of Mg that reacted.

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   (c) Hence calculate the moles of O_2 that reacted.

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   (d) Hence calculate the mass of O_2 that reacted.

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BONUS QUESTION ON OTHER SIDE

BONUS QUESTION

Calculate the mass of NO_2 produced when excess Cu reacts with 50 mL of 2.0 mol/L HNO_3.

$$Cu + HNO_3 \rightarrow Cu(NO_3)_2 + NO_2 + H_2O$$