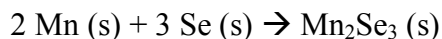


## Diagnostic Quiz for CHM 150/151

1. A synthesis was performed using 73.81 grams of selenium and an excess amount of manganese metal to form manganese (III) selenide. The chemical equation is as follows:



How many grams of manganese (III) selenide will be produced from this reaction?

2. Concentrated HCl solution has a density of 1.19 g/mL. How many milliliters of concentrated HCl solution are needed to provide 225 grams of hydrogen chloride from this solution?

3. Write the corresponding formula or name for the following compounds:

MgF<sub>2</sub> \_\_\_\_\_

diarsenic pentachloride \_\_\_\_\_

P<sub>4</sub>O<sub>10</sub> \_\_\_\_\_

nickel (II) nitrate \_\_\_\_\_

4. Balance the following chemical equations (**fill in all blanks even if the coefficient is numerically equal to 1**):

