Lab: Limiting Reactants Activity—Datasheet   Name_____

Complete the following using the candy provided. **Do not unwrap any candy.**

1. One butterscotch reacts with one peppermint to form a pepperscotch according to the following BALANCED equation. 1 Bs + 1 P → 1 PS
    a. Use the candy in the bag to illustrate this reaction and answer the following questions. How many pepperscotches can be formed and what is the limiting reactant? What reactant is in excess and how much of it is left over?
        # of pepperscotches formed _____
        LR _____   ER _____
        amount of excess left over _____

    b. Use the balanced equation to answer the following question. One butterscotch has a mass of 5.0 grams and one peppermint has a mass of 4.0 grams. How many pepperscotches can be made with 50.0 grams of butterscotch and 48.0 grams of peppermints?

2. One tootsie roll reacts with four gummy bears to form a tootsie bear according to the following BALANCED equation. 1 Tr + 4 Gb → 1 TB
    a. How many tootsie bears can be formed and what is the limiting reactant? What is the excess reactant and how much is left over?
        # of tootsie bears formed _____
        LR _____   ER _____
        amount of excess left over _____

    b. Use the balanced equation to answer the following question. One tootsie roll has a mass of 2.0 grams and one gummy bear has a mass of 1.5 g. How many tootsie bears can be made with 12.5 grams of tootsie rolls and 15.0 grams of gummy bears?

3. Two starburst fruit react with six skittles to from a skitburst according to the following BALANCED equation. 2 Sb + 6 Sk → 1 SB
   a. How many skitbursts can be formed and what is the limiting reactant? What is the excess reactant and how much is left over?

      # of skitbursts formed _____
      LR _____   ER _____
      amount of excess left over _____

   b. Use the balanced equation to answer the following question. One starburst has a mass of 5.0 grams and one skittle has a mass of 1.0 gram. How many skitburts can be made from 40.0 grams of starburst and 26.0 grams of skittles?

4. One caramel reacts with three candy corn to form a caramel corn according to the following BALANCED equation. 1 C + 3 Cc → 1 CC

   a. How many caramel corns can be formed and what is the limiting reactant? What is the excess reactant and how much is left over?

      # of caramel corns formed _____
      LR _____   ER _____
      amount of excess left over left over _____

   b. Use the balanced equation to answer the following question. One candy corn has a mass of 1.5 grams and one caramel has a mass of 11.0 g. How many caramel corns can be made with 60.0 grams of candy corn and 66.0 grams of caramel?