Cookie Chemistry Practice

1. In the chemical reaction to produce 72 chocolate cookies, the following reactants are necessary:

8 Tbsp margarine 3⁄4 cup cocoa

64 Tbsp sugar

1 cup milk

Pinch of salt

48 tsp peanut butter 2 tsp vanilla

96 Tbsp oats

1. However, due to a shortage of some supplies, your group will be limited to the following amounts of reactants. Determine the number of cookies that can be made from each of these reactants:

|  |  |
| --- | --- |
| Reactants | Number of Cookies Possible |
| 2 Tbsp margarine |  |
| 1 ½ cups cocoa |  |
| 32 Tbsp sugar |  |
| ½ cup milk |  |
| 32 tsp peanut butter |  |
| 1 tsp vanilla |  |
| 32 Tbsp oats |  |

1. Which reactant was the “limiting reactant?” \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. How many cookies can you actually make using these supplies? \_\_\_\_\_\_\_\_\_\_\_\_\_