Student Name a Date a

**Writing and Reducing Ratios**

Write the following numbers in the given situations as ratios in all three ways that you learned in the lesson:

1. There are 12 cupcakes for every 17 cookies on the dessert table
2. There are 16 patients for every 3 nurses in the Intensive Care Unit
3. There are 13 mg in every 2 mL of the medication

Write each of the following ratios as a fraction, and then convert each one into its *most reduced form*:

1. In every 3 feet of the wall, there are 15 bricks
2. For every 7 tables, there are 42 chairs
3. There are 324 mg in every 4 tablets of aspirin

Answer the following questions about medication dosages:

*(Hint: Turn them into a ratio and then convert to the most reduced form)*

1. A doctor writes a prescription for amoxicillin to treat a sinus infection. If the entire prescription is a total of 7500 mg in 30 pills, how many mg are in each pill?
2. An inpatient is to have 1000 mL of 12% potassium given over 4 hours. How many parts of potassium are there to parts water in this IV fluid?

*(Don’t forget to reduce)*

*Bonus Question (Extra Hard) – Ask the coach for help if you need it*

A patient with a severe urinary tract infection is given a prescription of Bactrim totaling 16,000 mg divided into 40 pills.

1. How many mg are in each pill?
2. If a single dose is 800 mg, how many pills are in a dose?
3. If the patient is to take 1600 mg per day, how many times per day must he take a single dose?
4. Based on the total number of pills the patient must take each day, how many days will the prescription last?