Student Name a Date a

**Math 4.2: Ratios and Proportions Quiz**

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

1. There are 4 adults for every 13 children in the room
2. There are 7 mg in every milliliter of the medication

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

1. There are 35 computers for every 140 students at the school
2. There are 18 mg in every 3 tablets of the medication

Answer the following question about a medication dosage:

1. A doctor writes a prescription for penicillin to treat a urinary tract infection. If the entire prescription is a total of 6250 mg in 25 pills, how many mg are in each pill?

Use the X rule to determine if the following proportions are equivalent or not:

1. $\frac{5}{6}=\frac{36}{42}$
2. $\frac{5}{12}=\frac{60}{144}$

Use the X Rule to find the unknown number in the following proportions:

1. $\frac{8}{9}=\frac{96}{X}$
2. $\frac{3}{8}=\frac{X}{72}$

Now use your knowledge of ratios, proportions and the X rule to solve the following medication word problem:

A 22-year-old male presents to the ER with confusion. Blood tests show that he is suffering from hypoglycemia. The doctor instructs you to give him a 20 g dose of glucose via IV. The fluid that you have in the store room says there is 0.25 g per mL of liquid. How many mL of IV fluid do you need to give the patient?