

Basic Math Skills

Students should have basic math skills in order to be able to do more advanced medication calculation problems. By the end of the third week of class, a **Math for Medication Calculation Test** will be given. All Nursing Program students must pass this test with a grade of **90% or higher**. A student may not take the exam more **than three (3) times**. Should a student not pass the exam at 90% by the third attempt, s/he will be unable to progress in the Nursing Program.

Following are examples of basic math problems. Should you have difficulty with this type of calculation, you are referred to remedial resources at the end of this document. You will need to be comfortable with basic math skills in order to do medication calculations.

Samples of basic math problems include:

1. Conversions: Convert the following:
 - a. 125 micrograms = _____ milligrams
 - b. 0.75 liters = _____ mL
 - c. 2.5 grams = _____ milligrams
 - d. 1500 milligrams = _____ grams
 - e. 132 pounds = _____ kilograms
 - f. 0.375 mg. = _____ micrograms
 - g. 3 ounces = _____ milliliters
 - h. 2 tablespoons = _____ teaspoons
 - i. 2 cups = _____ milliliters

2. Percentages: Calculate the following:
 - a. 40% of 180 = _____
 - b. 25% of 260 = _____
 - c. What percent of 27 is 9? _____
 - d. 40 is what percent of 160? _____

3. Calculate the following:
 - a. $5 \div 1.25 =$ _____
 - b. $5 \div 0.25 =$ _____
 - c. $200,000 \div 150 =$ _____
 - d. $75 \div 60 =$ _____
 - e. $1.25 \div 0.5 =$ _____
 - f. $25,000 \div 50 =$ _____
 - g. $625 \div 2.5 =$ _____
 - h. $95.25 \div 2.75 =$ _____
 - i. $2.5 \div 2 =$ _____

4. Calculate the following:
 - a. $2.25 \times 5 =$ _____
 - b. $3.375 \times 2 =$ _____
 - c. $22.54 \times 3 =$ _____

5. Circle the number with the largest value
 - a. 0.04, 0.45, 0.08
 - b. 1.202, 1.22, 1,222

6. Round the following decimals to the nearest tenth:
- 0.0628
 - 4.374
7. Round the following decimals to the nearest hundredth:
- 0.876
 - 0.871
 - 3.166
8. Round the following decimals to the nearest thousandth:
- 0.7752
 - 3.668
 - 9.237
9. Ratio / proportions:
- a. $3:6 \approx x:8$ $x = \underline{\hspace{2cm}}$
 - b. $16:x \approx 24:3$ $x = \underline{\hspace{2cm}}$
 - c. $x:25 \approx 125:5$ $x = \underline{\hspace{2cm}}$

Referral: If you have had difficulty calculating the above problems, you must remediate these basic math skills prior to entering the program. Suggestions for this remediation include:

1. Enroll in a basic math course at a community college or on line.
2. Purchase a Mathematics for Medications book and use it throughout the program.
3. Contact the Math Tutoring Center on campus for additional assistance.
4. Kaplan Basic Math module is available with your account.
5. <https://www.khanacademy.org/>