



Math Study Strategies

Math for Nursing Fluid Oral Medication



In liquid drug preparation, the weight of the drug is contained in a certain volume of solution expressed in mL or cc.

Sometimes these values can be expressed in ounces, drams, or teaspoons.

To measure the correct dosage for these oral solution, the nurse will use medicine cup calibrated in cc, tbs, tsp, dr (drams), and oz.

To read accurately the value, the cup needs to be hold at the eye level, then line up the measure you need and pour the calibration in for each mL.

Example:

A patient is ordered 230 milligrams of Amoxicillin Trihydrate orally. 250 milligrams in 5 milliliters of syrup is available. How many milliliters do you administer?

What is given:

Answer: 230 milligrams of Amoxicillin Trihydrate to administer orally

What is on the hand:

Answer: 5 milliliters of syrup containing 250 milligrams of dry drug

What is asked? How many milliliters need to be administered:

Start with the unit that is asked to find out.

$$\frac{5 \text{ mL}}{250 \text{ mg}} \times \frac{230 \text{ mg}}{\text{patient}}$$

Cancel same units of measures

The result after multiplying the numerator and the denominator and dividing the denominator into the numerator will be **4.6 mL**.

Because the cup's grading has division for each mL and the tenths exceed 5, we need to round

The amount will be 5 mL.