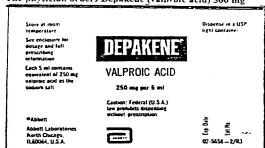
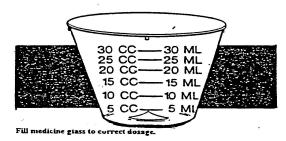
## Working Dosage Problems 1

The physician orders Depakene (valproic acid) 500 mg



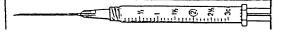


Dosage problems involving drugs which are measured in units other than metric or apothecaries' system units are worked by the same formulas used for other dosage problems. The units or milliequivalents of drug use tablets, capsules, or milliliters of liquid as the vehicle. Work problems using the same formula or proportion that you have been using, substituting the units or milliequivalents into the dose ordered and strength on hand positions.

## PROBLEMS USING UNITS AND MILLIEQUIVALENTS

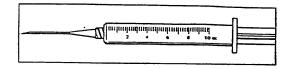
A unit of drug is one that cannot be analyzed by chemical means. The drug is standardized by its effect on laboratory animals under controlled conditions. The strength is determined by the amount of drug required to bring about a desired effect in a laboratory animal. The strength hormones and vitamins is measured in units. The abbreviation for unit is U.

The doctor orders 150 U of a drug. Given a vial containing 750 U per 5 mL, how much will you give?

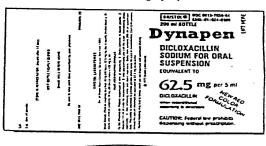


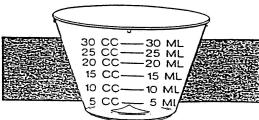
An equivalent is the unit of measure for chemical combining activity of an electrolyte. The chemical combining activity based upon the number of available ionic charges, (cation, anions) in solution. The concentration of electrolytes in biology is small and is therefore expressed as milliequivalents, 1/1000 of an equivalent. One milliequivalent of anion can react completely with one milliequivalent of any cation. The abbreviation for milliequivalent is mEq. Drugs used to maintain the body's electrolyte balance are usually measured milliequivalents.

You are told to add 30 mEq of potassium chloride to an IV. The label on the potassium chloride vial reads 40 mEq/10 ml. How many ml will you add?



Doctor's order: 250 mg Dynapen





Fill medicine glass to correct dosage