

3

A nurse is converting a client's weight from pounds to kilograms. What is the client's weight in kilograms?  
(Review the MAR and flow sheet. Round the answer to the nearest tenth.)

**Step 1**  
What is the unit of measurement the nurse should calculate? (Place the unit of measure being calculated on the equation.)  
 $X \text{ kg} =$

**Step 2**  
Find the ratio in the item that contains the same unit as the unit being calculated. (Place the ratio on the right side ensuring that the unit in the numerator matches the unit being calculated.)  
 $X \text{ kg} = \frac{1 \text{ kg}}{2.2 \text{ lb}}$

**Step 3**  
Place any remaining ratios that are relevant to the item on the right side of the equation along with any needed cancel out unwanted units of measure.  
 $X \text{ kg} = \frac{1 \text{ kg}}{2.2 \text{ lb}} \times \frac{102 \text{ lb}}{1}$

**Step 4**  
Solve for X.  
 $X \text{ kg} = 73.636363 \text{ kg}$

**Step 5**  
Round if necessary.  
73.636363 kg rounds to 73.6 kg.

if 1 kg equals 2.2 lb, it makes sense that 162 lb equals 73.0 kg.

3

A nurse is calculating the dosage of captopril. Available is captopril elixir 1 mg/mL. How many milliliters should the nurse administer?  
(Review the MAR and flow sheet. Round the answer to the nearest tenth.)

**Step 1**  
What is the unit of measurement the nurse should calculate? (Place the unit of measure being calculated on the equation.)  
 $X \text{ mL} =$

**Step 2**  
Find the ratio in the item that contains the same unit as the unit being calculated. (Place the ratio on the right side ensuring that the unit in the numerator matches the unit being calculated.)  
 $X \text{ mL} = \frac{1 \text{ mL}}{1 \text{ mg}}$

**Step 3**  
Place any remaining ratios that are relevant to the item on the right side of the equation along with any needed cancel out unwanted units of measure.  
 $X \text{ mL} = \frac{1 \text{ mL}}{1 \text{ mg}} \times \frac{12.5 \text{ mg}}{1}$

**Step 4**  
Solve for X.  
 $X \text{ mL} = 12.5 \text{ mL}$

**Step 5**  
Round if necessary.

0.7

**Step 1**  
What is the unit of measurement the nurse should calculate? (Place the unit of measure being calculated on the right side of the equation.)  
 $X \text{ mL} =$

**Step 2**  
Find the ratio in the item that contains the same unit as the unit being calculated. (Place the ratio on the right side ensuring that the unit in the numerator matches the unit being calculated.)  
 $X \text{ mL} = \frac{1 \text{ mL}}{100 \text{ mg}}$

**Step 3**  
Place any remaining ratios that are relevant to the item on the right side of the equation along with any needed or cancel out unwanted units of measure.  
 $X \text{ mL} = \frac{100 \text{ mg}}{100 \text{ mg}} \times 70 \text{ mg}$

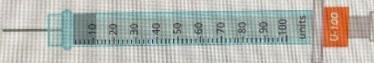
**Step 4**  
Solve for X.  
 $X \text{ mL} = 0.7 \text{ mL}$

**Step 5**  
Round if necessary.

**Step 6**  
Perform the appropriate calculation.  
If there are two ratios and the calculated amount is 70 mg, it makes sense to subtract 0.7 mL. The nurse should administer 0.7 mL subcutaneous daily.

A nurse is calculating the dosage of lorazepam. Available is lorazepam solution 2 mg/mL. How many milliliters should the nurse administer?

(Review the MAR and flow sheet. Round the answer to the nearest hundredth. Measure the correct dose on the syringe by dragging the syringe. Then click "Submit.")



0.25

**Step 1**  
What is the unit of measurement the nurse should calculate? (Place the unit of measure being calculated on the right side of the equation.)  
 $X \text{ mL} =$

**Step 2**  
Find the ratio in the item that contains the same unit as the unit being calculated. (Place the ratio on the right side ensuring that the unit in the numerator matches the unit being calculated.)  
 $X \text{ mL} = \frac{1 \text{ mL}}{2 \text{ mg}}$

**Step 3**  
Place any remaining ratios that are relevant to the item on the right side of the equation along with any needed or cancel out unwanted units of measure.

administer?

(Review the MAR and flow sheet, round the answer to the nearest tenth.)

**Step 1**  
What is the unit of measurement the nurse should calculate? (Place the unit of measure being calculated on the equation.)  
 $X \text{ mL} =$

**Step 2**  
Find the ratio in the item that contains the same unit as the unit being calculated. (Place the ratio on the right side, ensuring that the unit in the numerator and denominator will be cancelled.)  
 $X \text{ mL} = \frac{1 \text{ mL}}{20 \text{ mg}}$

**Step 3**  
Place any remaining ratios that are relevant to the item on the right side of the equation along with any rounded conversion factor (convert units of measure).  
 $X \text{ mL} = \frac{1 \text{ mL}}{20 \text{ mg}} \times \frac{30 \text{ mg}}{1}$

**Step 4**  
Solve for X.  
 $X \text{ mL} = 1.5 \text{ mL}$

**Step 5**  
Round if necessary.

**Step 6**  
Determine if the amount is appropriate (takes some).  
If there are 20 mg/mL and the prescribed amount is 30 mg, it makes sense to administer 1.5 mL. The nurse should administer oral solution 1.5 mL per 15 min PRN pain.

A nurse is calculating the dosage of fluoxetine. Available is fluoxetine 20 mg/5 mL. How many milliliters should the nurse administer?

(Review the MAR and flow sheet, round the answer to the nearest tenth. Measure the correct dose of the medication in syringe. Then click "Submit.")



**Step 1**  
What is the unit of measurement the nurse should calculate? (Place the unit of measure being calculated on the left side of equation.)  
 $X \text{ mL} =$

**Step 2**  
Find the ratio in the item that contains the same unit as the unit being calculated. (Place the ratio on the right side of the equation, ensuring that the unit in the numerator and denominator will be cancelled.)  
 $X \text{ mL} = \frac{5 \text{ mL}}{20 \text{ mg}}$

**Step 3**  
Place any remaining ratios that are relevant to the item on the right side of the equation along with any rounded conversion factor (convert units of measure).  
 $X \text{ mL} = \frac{5 \text{ mL}}{20 \text{ mg}} \times \frac{15 \text{ mg}}{1}$

Fluoxetine 30 mg per 5 mL sublingual.

A nurse is calculating the dosage of meprobamate. Available is meprobamate solution 10 mg/5 mL. How many milliliters should the nurse administer?

(Round the answer to the nearest tenth. Review the MAR and flow sheet. Round the answer to the nearest tenth.)

**Step 1**  
What is the unit of measurement the nurse should calculate? (Place the unit of measure being calculated on the equation.)  
 $X \text{ mL} =$

**Step 2**  
Find the ratio in the item that contains the same unit as the unit being calculated. (Place the ratio on the right side, ensuring that the unit in the numerator and denominator will be cancelled.)  
 $X \text{ mL} = \frac{5 \text{ mL}}{10 \text{ mg}}$

**Step 3**  
Place any remaining ratios that are relevant to the item on the right side of the equation along with any rounded conversion factor (convert units of measure).  
 $X \text{ mL} = \frac{5 \text{ mL}}{10 \text{ mg}} \times \frac{15 \text{ mg}}{1}$