



Conversions – Alligations

Chapter 6 Worksheet E

Here's a sample problem, these seem complicated but just follow this lead:

Rx: 400 mL of 30% NaCl suspension

Your pharmacy has 20% and 60% NaCl suspension in stock. How many mL of 60% will be needed to fill this Rx?

20		30	(30/40) x 400 mL = 300 mL of 20% NaCl Susp
	30		
60		+ 10	(10/40) x 400 mL = 100 mL of 60% NaCl Susp
		40	

1) You receive a prescription for 16 fl oz of 41% fluoxetine syrup. On the shelf you have 42% and 34% preparations of Prozac Syrup. How many fl oz of the 42% preparation will be needed to fill this Rx?

- a) 10 fl oz
- b) 440 mL
- c) 14 fl oz
- d) 14 mL

2) The doctor writes for 0.46 L of 24% loratadine susp. You have 48% and 16% in stock. How many mL of 16% loratadine susp. will be needed to compound this prescription?

- a) 100 mL
- b) 115 mL
- c) 345 mL
- d) 360 mL

3) A prescriber writes for 440 mL of 68% lansoprazole solution. Your pharmacy stocks 80% and 64% lansoprazole soln. How many mL of 80% lansoprazole soln. will be used to formulate this prescription?

- a) 110 mL
- b) 220 mL
- c) 330 mL
- d) 440 mL



- 4)** A patient is prescribed to take 1 tablespoon bid for 14 days of 63% ibuprofen soln. On the shelf you have 90% and 54%, how many mL of 90% ibuprofen soln. will be needed to formulate this prescription?
- a) 100 mL
 - b) 105 mL
 - c) 110 mL
 - d) 115 mL
- 5)** Jo Shmoe hands you a prescription for 0.4 L of 41% APAP elixir. You have 53% and 21% APAP elixir. How many mL of 53% APAP elixir will be used in compounding 41% APAP elixir?
- a) 125 mL
 - b) 150 mL
 - c) 250 mL
 - d) 275 mL
- 6)** A 14yr old boy, weighing 27 kg is written a prescription for 360 mL of 52% NaCl Soln. Your pharmacy carries 58% and 34% NaCl Solution. How many mL of 34% NaCl Soln. will be needed to formulate this prescription?
- a) 60 mL
 - b) 90 mL
 - c) 120 mL
 - d) 150 mL
- 7)** A prescriber writes a 56 yr old female a prescription for 0.34 L of 50% potassium chloride suspension with a sig: 2t bid. On the shelf you have 86% and 38% KCl susp. How many mL of 86% will be used to concoct the appropriate quantity sufficient for the prescribed suspension?
- a) 275 mL
 - b) 255 mL
 - c) 100 mL
 - d) 85 mL
- 8)** A doctor writes for 320 mL of 34% hyoscamine elixir. On the shelf you have 52% and 28% hyoscamine elixir. How many mL of the 52% formulation will be utilized to formulate this prescription?
- a) 50 mL
 - b) 60mL
 - c) 70 mL
 - d) 80 mL