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	
60		10
		+ 40

(30/40) x 400 mL = 300 mL of 20% NaCl Susp

(10/40) x 400 mL = 100 mL of 60% NaCl Susp

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