

Resource: Ch. 3 of *Pharmaceutical Calculations for Pharmacy Technicians: A Worktext*

Complete the following exercises:

Show all your calculations in a Microsoft® Word document

1. Test Your Knowledge, p. 24: Problems 2, 4, 6, 8, 10, 12, 14, 16, 18
2. Test Your Knowledge, p.25: Problems 21, 22, 23, 24, 25, 27, 28, 29, 38, & 40
3. You are asked to prepare a 5% solution of dextrose in a container of 500 mL. You are given the following equation to help you solve the answer. What is the answer in grams?  $5 \text{ g}/100 \text{ mL} = X \text{ g}/500 \text{ mL}$
4. Access the Pharmacy-Terminology Crossword Puzzle, located on the student website. Complete the puzzle using the clues provided. Send a screenshot of the completed puzzle to your instructor.

To create a screenshot:

- Press **Alt + Print Screen** on your computer keyboard to create a screenshot.
- Open a blank Microsoft® Word document.
- Press **Ctrl + V** on your computer keyboard to paste the screenshot into the blank Word document.

Post your answers and crossword puzzle document under the Assignment Link along with a signed copy of the Certificate of Originality as an attachment.

1. You are asked to prepare a 5% solution of dextrose in a container of 500 mL. You are given the following equation to help you solve the answer. What is the answer in grams?  $5 \text{ g}/100 \text{ mL} = X \text{ g}/500 \text{ mL}$

Sol: let the gram be  $x$

Now, given

$$5 \text{ g}/100 \text{ mL} = X \text{ g}/500 \text{ mL}$$

$$= 5/100 = x/500$$

$$= 1/20 = x/500$$

$$= 1/20 = x/500$$

$$= 20x = 500$$

$$= x = 500/20$$

$$= x = 25$$

So the answer in gram is 25 gram...

Express the following percents as decimals.

6%

$$= \frac{6}{100}$$

$$= 0.06$$

0.01%

$$= \frac{0.01}{100}$$

Express the following percents as fractions and reduce the answers to the lowest terms.

5%

$$= \frac{5}{100}$$

$$= \frac{1}{20}$$

0.3%

$$= \frac{0.3}{100}$$

$$= \frac{3}{1000}$$

0.05%

$$= \frac{0.05}{100}$$

$$= \frac{5}{10000}$$

$$= \frac{1}{2000}$$

Express the following as ratios

$$\frac{1}{500}$$

$$= 1:500$$

$$\frac{2}{150}$$

$$= \frac{1}{75}$$

$$= 1:75$$

Express the following percents as ratios

$$1\%$$

$$= \frac{1}{100}$$

$$= 1 : 100$$

$$12.5\%$$

$$= \frac{12.5}{100}$$

$$= \frac{5}{40}$$

$$= \frac{1}{8}$$

$$= 1:8$$