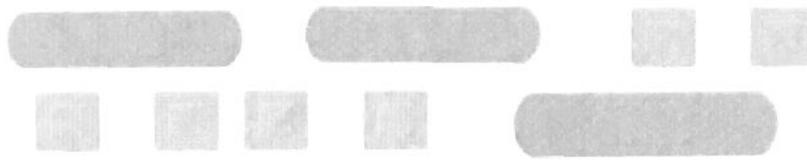


ANSWER KEY

GUIDED PRACTICE Lesson 9 – Ratios and Proportions

Set up ratios for these items. Simplify them if possible.



- a. Long bandages to square bandages $3:6 = 1:2$
b. Square bandages to total bandages $6:9 = 2:3$
c. Square bandages to long bandages $6:3 = 2:1$
d. Total bandages to long bandages $9:3 = 3:1$

Set up these solutions up as a ratio, and simplify if possible.

- a. 4% solution $4:100 = 1:25$
b. 60% solution $60:100 = 3:5$
c. 25% solution $25:100 = 1:4$

Find the unit rate or unit price.

- a. Jane drives 120 miles in 2 hours. How many miles per hour did she drive? 60 mph
b. There are 90 pills in 3 bottles. How many pills are in one bottle? 30 pills
c. If a pack of 150 latex gloves is \$5.00, about how much is one glove? $\text{about } 3¢$

Go to page 96 in Math Basics for the Health Care Professional.

On numbers 1-5, mark yes or no to show whether the following are proportional.

On page 97, do numbers 1-5. Solve for the missing proportion.

On pages 99-100, do numbers 1-10. Using proportions and the chart at the top of the page, find the conversions for each problem.

Set up and solve the following proportion problems.

- a. Tom drove 80 miles in 4 hours. At this same rate, how far could he drive in 5 hours? $\frac{4}{80} = \frac{5}{x} \quad x = 100$

- b. At the hospital, for every 5 women nurses, there is 1 male nurse. If there are 100 women nurses that work at the hospital, how many male nurses are there? $\frac{1}{5} = \frac{x}{100} \quad x = 20$

- c. The hospital cook need 3 cups of sugar to make one pan of brownies. How much sugar will she need if she makes 8 pans of brownies? $\frac{3}{1} = \frac{x}{8} \quad x = 24$

- d. If one glass of milk contains 280 milligrams of calcium, how much calcium is 3 glasses of milk?

$$\frac{1}{280} = \frac{3}{x} \quad x = 840$$

ANSWER KEY

INDEPENDENT PRACTICE Lesson 9 – Ratios and Proportions

Set up ratios for these items. Simplify them if possible.



- a. alcohol swabs to tongue depressors
- b. tongue depressors to total items $3:7$
- c. tongue depressors to alcohol swabs $3:4$
- d. Total items to alcohol swabs $7:4$

Set up these solutions up as a ratio, and simplify if possible.

- a. 5% solution $5:100 = 1:20$
- b. 35% solution $35:100 = 7:20$
- c. 40% solution $40:100 = 2:5$

Find the unit rate or unit price.

- a. There are 48 calories in 12 carrot sticks. How many calories are in one stick? 4
- b. If a bottle of 24 caplets of acetaminophen costs \$4.00, how much is one caplet? *about 16¢*
- c. If 20 mL of solution has 5 grams of pure drug, how much solution is there for 1 gram of pure drug? 4

On page 97 of Math Basics for the Health Care Professional, do numbers 6-10. Solve for the missing proportion.

On page 100, do numbers 11-20. Using proportions and the chart at the top of page 99, find the conversions for each problem.

On page 101, set up and solve problems 1-5 to find the missing proportions.