

620 Proportion Word Problems

Name: _____

Directions: For each word problem – set up a proportion, solve and, using a full sentence, answer the question.

Example:

Carol spends 17 hours in a 2 week period practicing her typing skills. How many hours does she practice in 5 weeks.

Proportion: There are different rates to choose. I will use $\frac{\text{hours}}{\text{weeks}}$.

Set up a proportion (two fractions equaling each other) being very careful to put same units in the same position.

$$\frac{17 \text{ hours}}{2 \text{ weeks}} = \frac{x \text{ hours}}{5 \text{ weeks}}$$

Cross Multiply to solve:

$$(17)(5) = (2)(x)$$

$$85 = 2x$$

$$x = 42.5 \text{ hours}$$

Summarize:

In 5 weeks Carol will practice for 42.5 hours.

Word Problems.

1. In the typing world, 80 words per minute is considered acceptable. How many words per 30 minutes is this?
2. In a shipment of 400 parts, 14 are found to be defective. How many defective parts should be expected in a shipment of 1000?
3. A piece of cable 8.5 cm long weighs 52 grams. What will a 10-cm length of the same cable weigh?
4. A snowstorm dumped 18 inches of snow in a 12-hour period. How many inches were falling per hour? Assume a constant snowfall rate.

5. Marta can read 22 pages in 30 minutes. How long would it take her to read a 100 page book? Write your answer in hours and minutes, rounding to the nearest minute if needed.
6. A worker can completely assemble 15 X boxes in 6 hours. At this rate, how many can the worker complete in a 40-hour work week?
7. Jose drives 125 miles in $2\frac{1}{2}$ hours. At the same rate, how far will he be able to travel in 6 hours?
8. A yard of fabric costs \$12.99. How much will 2 feet cost? (There are 3 feet in one yard.)
9. A doctor sees each of her patients for 25 minutes during a typical appointment. How many patients can she see in a typical $7\frac{1}{2}$ hour day?
10. The ratio of men to women in a class is 6 to 5. How many women are there if there are 3600 students in total?
11. You find that your watch gains 2 minutes in 6 hours. How much will it gain in 3 days?