

Study Guide – Proportions and Consumer Math

Reminders: When you are solving proportions, make sure that your top is the same and the bottom is the same. Color code the word problem and be careful how you set it up. If you are given only three pieces of information and are asked to solve four, chances are, you need to set up a proportion. Also make sure that you READ THE QUESTION. Only answer what you are asked to solve.

1. If 5 miles is equal to 6,534.2 meters, how many meters are in 8 miles?
2. If 3 cans of tuna cost \$5.89, how much would 14 cans cost? Make sure that you round to the nearest hundredths since pennies represent hundredths.
3. Jack reads 13 pages in 20 minutes. How many pages would he read in 53 minutes? Do not solve, but write two different ways that you could write this proportion.
4. A giraffe stands 14 feet tall and casts a shadow that is 10 feet long. If a tree is nearby and casts a shadow that is 12 feet long, how tall is the tree?
5. Cat food can be expensive, however I had a coupon for 20% off. What is the discount that would be taken off the cost of the cat food if it cost \$2.29 a can and I bought 10 cans?
6. Sammy cannot wait until after the holidays – super huge sales going on! She had a coupon for 60% off her entire purchase. Sammy bought a toy truck for \$6.79 and a board game for \$12.99. How much did she have to pay after the discount was taken off?
7. Kimberly purchased a necklace for her friend since her birthday is coming up. She had to pay 7% sales tax. How much was her total purchase if she paid \$39.99 for the necklace?
8. Shrek happened to run out of canned grasshoppers, a delicious snack. The price of these wonderful morsels were \$13.99 and he had to pay 5.6% sales tax. How much was the sales tax?
9. Dining at a local steak house, the bill came to \$69.38. The service was wonderful so the family decided to leave a % tip. How much was the tip?
10. Using the situation in number 9, what is the total the family left?

11. What makes the value of x true?

$$\frac{-4}{29} = \frac{16}{x}$$

12. Sue went shopping for a jacket. The original price was \$59.99 and she paid \$35.99. What was the percent off coupon she presented to the store? This is tricky – so

13. The scale factor indicated on the map that $\frac{1}{2}$ inch = 3.5 miles. If the distance on the map was 8 inches, how many miles would this be?

14. Solve the following:

- 17 is 14% of what number
- 53% is what number of 24
- what percent is 14 out of 52

15. Look at the map below. How many miles would it be if the cities are 7 cm apart?

1 cm = 8.2 miles



16. Jack and Jill went out to a restaurant on the hill. The cost of their meal was \$52. Jill had a coupon for 25% off. What was amount of the discount?

17. What is the value of $-16 - (-4) =$

18. What would three possible solutions be to $-12 < -4y$

19. What is the fraction and decimal to 10^3

20. $\left[(-4 - 8) \div -2 \right] + (-2)^3$

ON YOUR TEST WATCH FOR NOT QUESTIONS!!!!!!!