

## Proportions Word Problems

1. If 3 apples cost \$6, how much would 12 apples cost?
2. 3 pounds cost \$15. How many pounds can you buy for \$45?
3. Three tea bags are needed to make a gallon of iced tea. How many tea bags are needed to make four gallons?
4. If 5 pencils cost 20 cents, how much would 15 pencils cost?
5. If 3 twinkies cost \$1, how much is it for 15 twinkies?
6. You can buy 2 hot dogs for \$3. How much would it be for 4 hot dogs?
7. The ratio of teachers to students needs to be 1:30. If there were 120 students, how many teachers would be needed?
8. The ratio of seventh graders to eighth graders participating in the science fair is 4:3. There are 18 eighth graders participating in the science fair. How many 7<sup>th</sup> graders are there?
9. To make lemonade, you need 6 lemons and 8 cups of water. How many lemons do you need if you have 24 cups of water?
10. Darrell drove 187 miles in 3 hours. What was Darrell's average rate of speed in miles per hour?
11. If three bakers can prepare 15 cakes in 60 minutes, how long will it take six bakers working at the same rate to prepare 20 cakes?
12. At Discount Copy, 12 copies cost \$0.66. Melissa needs 56 copies. How much should they cost?
13. Two 100-W light bulbs used a total of 400 Wh of energy. For how many hours did the light bulbs use power?
14. An amusement park line is moving about 4 feet every 15 minutes. At this rate, approximately how long will it take for a person at the back of the 50- foot line to reach the front of the line?

15. For every left-handed person, there are about 4 right-handed people. If there are 30 students in a class, write and solve a proportion to predict the number of students who are right-handed.
16. A diagram measuring 20 cm long is reduced on a copy machine to 15 cm long. If the width of the original copy is 16 cm, what is the width of the reduced copy?
17. You estimate that you can do 12 math problems in 45 min. How long should it take you to do 20 math problems?
18. Evarado paid \$1.12 for a dozen eggs. Write and solve a proportion to determine the cost of the 3 eggs Evarado needs for a recipe.
19. The ratio of an object's weight on Earth to its weight on the Moon is 6:1. The first person to walk on the Moon was Neil Armstrong. He weighed 165 pounds on Earth. How much did he weigh on the moon?
20. The ratio of the length of the actual height of a person to the length of their shadow cast is 1:3. At the same time, a lighthouse casts a shadow that is 600 meters long. How tall is the lighthouse?
21. Three posters cost \$9.60. At that rate, how many posters can you buy for \$48?
22. At the Copy Shoppe, 18 copies cost \$1.08. At that rate, how much will 40 copies cost?
23. A 20-gigabyte digital music player sells for \$249. A similar 30-gigabyte player sells for \$349. Which player offers the better price per gigabyte of storage?
24. Which costs more per issue, an 18-issue subscription for \$40.50 or a 12-issue subscription for \$33.60?
25. For every person who actually has the flu, there are 6 people who have flu-like symptoms resulting from a cold. If a doctor sees 40 patients, write and solve a proportion to determine how many of these you would expect to have a cold.
26. An 8-ounce box of Crispy Crackers costs \$1.59 and a 2-pound box costs \$6.79. Which box is the better buy?

27. Lee is reading a 374-page novel. It takes her 6 days to read the first 132 pages. At this rate, how many more days will it take her to finish the novel?
28. Jaron is downloading a file. The size of the file is 3,200 KB. It takes 3 minutes to download the first 1,200 KB of the file. If the file continues downloading at the same rate, how many more minutes will it take to finish downloading?
29. Ana is using a photocopier to make 315 copies of a poster. It takes 3 minutes to print the first 63 posters. If the photocopier continues to print at the same rate, how many more minutes will it take to complete the job?
30. A 5-pound bag of grass seed covers 2,000 square feet. An opened bag has 3 pounds of seed remaining in it. Will this be enough to seed a 14-yard by 8-yard piece of land? (Answer YES or NO)
31. It takes 20 minutes to cut a log into 5 equal-size pieces. How long will it take to cut a similar log into 3 equal-size pieces?
32. A 50-pound bag of Glossy Coat Horse Feed costs \$23.50. A 25-pound bag costs \$15.50. How much money per pound would you save by buying the bag with the lower unit price?
33. Patrice and Tatiana share baby-sitting duties. The ratio comparing the amount of time each one works is 6:5. They earn a total of \$77. If Patrice works longer, how much should each receive?
34. Jacob is selling T-shirts at a music festival. Yesterday, he sold 51 shirts and earned \$191.25. How many shirts must Jacob sell today and tomorrow to earn a total of \$536.25 for all 3 days?

6	9	5	10	35	24	62	75	12	0.15	0.28	200
5	3	8	12	42	24	40	12	11	0.60	27.5	1.59
4	2	20	12	92	18	24	15	≈ 34	3.08	2.40	249