Practice Problems for Parts of Whole Things
from www.topmath.info

1 A subdivision had 1300 people in 1962, and then the number of people increased by 16% over the next year. How many people were in the subdivision in 1963?

2 Richaneau is completely contained within Blumburg. If the population of Richaneau is 55% of the population of the rest of Blumburg, what percentage of the total population of Blumburg lives in Richaneau?

3 114 is what percent of 100?

4 64 is 8% of what number?

5 Kelly has 14 crayons from a group of 24 crayons. Write the ratio of the crayons that Kelly has to the remaining crayons in lowest terms.

6 Kelly has 3 toy trucks from a group of 10 toy trucks. Write the ratio of the toy trucks that Kelly has to the remaining toy trucks in lowest terms.

7 If s is directly proportional to w, and s=6 when w=10, what is s when w=11?

8 In the time it takes Marcia to move 9 feet, Marcia's baby brother can move 4 inches. Write the ratio of Marcia's baby brother's speed to Marcia's speed in lowest terms.

9 In the time it takes Richard to move 6 meters, Richard's pet turtle can move 3 centimeters. Write the ratio of Richard's speed to Richard's pet turtle's speed in lowest terms.

10 In the time it takes Sharon to move 12 meters, Sharon's pet turtle can move 80 centimeters. Write the ratio of Sharon's pet turtle's speed to Sharon's speed in lowest terms.

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11 John ate 2 pieces of a cake that had been cut into 7 equal pieces. What fraction of the cake did John eat?

12 Eric has 56 model airplanes from a group of 88 model airplanes. Write the fraction of the model airplanes that Eric has a fraction in lowest terms.

13 Lisa has 7 trading cards from a group of 42 trading cards. Write the fraction of these trading cards that Lisa DOES NOT HAVE as a fraction in lowest terms.

14 John ran 3 3/8 miles on Monday and 2 3/8 miles on Tuesday. What is the total number of miles John ran?

15 What is 139% of 100?

1 ANSWER: 1508. EXPLANATION: An increase of 16% is equivalent to multiplying by 1.16. Therefore, to figure out how many people were present after the increase, simply multiply 1300 by 1.16.

2 ANSWER: 35.48%. EXPLANATION: For every 55 residents of Richaneau, there are 100 people who reside in Blumburg outside of Richaneau. Thus, the population of Richaneau is 55/155 of the total population of Blumburg. This fraction simplifies to 11/31; divide the numerator into the denominator to find the answer. Move the decimal point two places to the right to make it a percentage, of course.

3 ANSWER: 114

4 ANSWER: 800

5 ANSWER: 7:5

6 ANSWER: 3:7

7 ANSWER: 6 3/5. EXPLANATION: The value of w changes from 10 to 11. This requires multiplying by 11/10. Since s and w are directly proportional, we must also multiply the first value of s (6) by 11/10 to get the answer.

8 ANSWER: 1:27

9 ANSWER: 200:1

10 ANSWER: 1:15

11 ANSWER: 2/7

12 ANSWER: 7/11

13 ANSWER: 5/6

14 ANSWER: 5 3/4

15 ANSWER: 139