

Math 6 Chapter 8 Test Study Guide

Name Key

Solve. Do not use a calculator for these 2 questions.

1. $\frac{5}{8} \div \frac{3}{5}$

$\frac{5}{8} \times \frac{5}{3} = \frac{25}{24}$

2. $1\frac{7}{8} \div \frac{3}{8}$

$\frac{15}{8} \div \frac{3}{8} = \frac{15}{8} \times \frac{8}{3} = \frac{5}{1} = 5$

3. $1.5K = \frac{3}{2}$

$1.5 = \frac{3}{2}$
 $K = \frac{3}{3} \times \frac{2}{3} = K = \frac{2}{3}$

4. $\frac{1}{4}g = 16$

$\frac{1}{4} = \frac{1}{4}$
 $g = 16 \times 4 = 64$

5. Joe had a copy of his favorite photograph made. The original photo was 4 in. (height) X 6 in. (width). Joe's enlargement has a height of 9 in. Joe used the proportion $\frac{9}{4} = \frac{w}{6}$ to find the width of his new photo. What was the unknown width, to the nearest tenth of an inch?

$\frac{9}{4} = \frac{w}{6}$
 $4w = 54$
 $w = 13.5$

Solve:

6. $\frac{5}{j} = \frac{10}{13}$

$\frac{10j}{10} = \frac{65}{10}$
 $j = 6.5$

What is the reciprocal of

7. 15

$\frac{1}{15}$

8. $\frac{4}{3}$

$\frac{3}{4}$

9. $2\frac{7}{8} = \frac{23}{8} \rightarrow \frac{8}{23}$

Rewrite as a multiplication problem and calculate.

10. $18 \div \frac{6}{7}$

$18 \times \frac{7}{6} = 21$

11. 14 adults went on a bus trip. The ration of men to women was 2:5. How many men and how many women went on the trip?

2 parts men

7 total parts

$2 \times 2 = 4$ men

$\frac{4}{10} = \frac{2}{5}$

5 parts women

$14 \div 7 = 2$

$2 \times 5 = 10$ women

12. In the 400 meter race, Jan runs the first 50 meters in 9.5 seconds. If she maintains this same pace, how long will it take her to complete the race?

$\frac{50}{9.5} = \frac{400}{x}$

$\frac{50x}{50} = \frac{3800}{50}$

$x = 76$ sec.

13. On Saturday, the zoo had 3,415 visitors. Of these, 2,650 were children. To the nearest tenth of a percent, what percent of zoo visitors were not children?

$3415 - 2650 = 765$ were not children

$\frac{765}{3415}$

$= 0.224011...$

$\approx 22.4\%$ were

not children

(next)

14. A landscaper spends an average of $1\frac{1}{2}$ hours mowing a lawn. At this rate, how many lawns will he be able to mow in 12 hours?

15. Evaluate $\frac{6+3}{2} - \frac{6-1}{5-3} = \frac{9}{2} - \frac{5}{2} = \frac{4}{2} = 2$

$$\frac{1\frac{1}{2}}{1} = \frac{12}{x}$$

$$\frac{1\frac{1}{2}x}{1\frac{1}{2}} = \frac{12}{1\frac{1}{2}}$$

$$x = 8$$