

Name \_\_\_\_\_

Date \_\_\_\_\_

**Additional Exercises 3.2**  
**Form I**  
Ratio and Proportion

Express each ratio as a fraction reduced to lowest terms.

1. 32 to 48 1. \_\_\_\_\_

2. 40 to 56 2. \_\_\_\_\_

3. 27 : 45 3. \_\_\_\_\_

4. In one algebra class, 30 of the students were female and 12 were male. What was the ratio of female students to male students? 4. \_\_\_\_\_

5. According to a motorcycle club's membership, 120 of its members are single and 160 of its members are married. What is the ratio of single members to married members? 5. \_\_\_\_\_

Solve the proportion.

6.  $\frac{x}{48} = \frac{7}{16}$  6. \_\_\_\_\_

7.  $\frac{5}{12} = \frac{6}{x}$  7. \_\_\_\_\_

8.  $\frac{3}{8} = \frac{x}{104}$  8. \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

9.  $\frac{2}{3} = \frac{3}{y}$

9. \_\_\_\_\_

10.  $\frac{3}{8} = \frac{4x}{192}$

10. \_\_\_\_\_

11.  $\frac{x}{54} = \frac{20}{9}$

11. \_\_\_\_\_

12.  $\frac{2y+3}{y} = \frac{3}{2}$

12. \_\_\_\_\_

Solve the problem.

13. It takes Kathy 10 minutes to type and spell check 6 pages of manuscript. Find how long it takes her to type and spell check 9 pages.

13. \_\_\_\_\_

14. On a map, 1 inch corresponds to 75 miles. If two cities are 4 inches apart, how many miles apart are the two cities?

14. \_\_\_\_\_

15. It takes 2 bags of fertilizer to cover 1500 square feet of lawn. Find the number of bags of fertilizer that will be needed to cover 4500 square feet of lawn.

15. \_\_\_\_\_

16. The ratio of a quarterback's completed passes to attempted passes is 8 to 9. If he attempted 45 passes, find how many passes he completed.

16. \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

**Additional Exercises 3.2**  
**Form II**  
Ratio and Proportion

Express each ratio as a fraction reduced to lowest terms.

1. 26 to 4 1. \_\_\_\_\_

2. 33 to 48 2. \_\_\_\_\_

3. 40 : 96 3. \_\_\_\_\_

4. According to an organization's membership list, it has 1400 members that are married and 600 members that are single. What is the ratio of members that are married to members that are single? 4. \_\_\_\_\_

5. A community college has 4208 students enrolled in one or more classes. There are 1052 male students. Find the ratio of female to male students enrolled in the college. 5. \_\_\_\_\_

Solve the proportion.

6.  $\frac{5}{19} = \frac{x}{133}$  6. \_\_\_\_\_

7.  $\frac{y}{26} = \frac{126}{234}$  7. \_\_\_\_\_

8.  $\frac{1}{x} = \frac{6}{44}$  8. \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

9.  $\frac{x}{6} = \frac{18}{4}$

9. \_\_\_\_\_

10.  $\frac{15}{16} = \frac{x}{24}$

10. \_\_\_\_\_

11.  $\frac{2}{3} = \frac{y+5}{y+11}$

11. \_\_\_\_\_

12.  $\frac{1}{x+8} = \frac{3}{5x}$

12. \_\_\_\_\_

Solve the problem.

13. If John can download 12 movies for \$30, how much would it cost for 8 movies?

13. \_\_\_\_\_

14. If two gallons of gas costs \$7.30, how much would it cost to fill a 25 gallon tank?

14. \_\_\_\_\_

15. It is recommended that there be at least 12.1 square feet of floor space in a classroom for every student in the class. Find the minimum floor space recommended for 21 students. Round to the nearest tenth, if necessary.

15. \_\_\_\_\_

16. On an architect's blueprint, 1 inch corresponds to 12 feet. If an exterior wall is 40 feet long, find how long the blueprint measurement should be. Write your answer as a mixed number, if necessary.

16. \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

**Additional Exercises 3.2**  
**Form III**  
Ratio and Proportion

Express each ratio as a fraction reduced to lowest terms.

1. 288 to 30 1. \_\_\_\_\_

2. 49 : 56 2. \_\_\_\_\_

3. 42.5 to 212.5 3. \_\_\_\_\_

4. Tamme's Day Care employ's 4 certified daycare workers. There are 32 children enrolled at the daycare facility. Find the ratio of children to daycare workers. 4. \_\_\_\_\_

5. There are 1236 male students and 618 female students at a local high school. Find the ratio of female students to total students. 5. \_\_\_\_\_

Solve the proportion.

6.  $\frac{20}{100} = \frac{x}{60}$  6. \_\_\_\_\_

7.  $\frac{y}{26} = \frac{18}{130}$  7. \_\_\_\_\_

8.  $\frac{x}{2} = \frac{x+1}{3}$  8. \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

9.  $\frac{m-6}{5} = \frac{m-8}{7}$

9. \_\_\_\_\_

10.  $\frac{8}{3} = \frac{4x}{5}$

10. \_\_\_\_\_

11.  $\frac{x+4}{6} = \frac{6}{2}$

11. \_\_\_\_\_

12.  $\frac{2.25+27}{9} = \frac{2.5x+2}{3}$

12. \_\_\_\_\_

Solve the problem.

13. If 8 shirts cost \$103.92, find the cost of 6 shirts.

13. \_\_\_\_\_

14. It is recommended that there be at least 17.2 square feet of ground space in a garden for every newly planted shrub. A garden is 25.8' by 24'. Find the maximum number of shrubs the garden can accommodate.

14. \_\_\_\_\_

15. It is recommended that there be at least 17 square feet of work space for every person in a conference room. A certain conference room is 13' by 18'. Find the maximum number of people the room can accommodate.

15. \_\_\_\_\_

16. A bag of fertilizer covers 2500 square feet of lawn. Find how many bags of fertilizer should be purchased to cover a rectangular lawn 320 feet by 230 feet.

16. \_\_\_\_\_