

Name _____

Date _____

Practice Set 3.2
Ratio and Proportion

Express each ratio as a fraction in lowest terms.

1. 32 to 48

1. _____

2. 20 to 55

2. _____

3. 76 to 16

3. _____

Determine whether each of the following is a proportion by using cross products.

4. $\frac{8}{9} = \frac{20}{22}$

4. _____

5. $\frac{15}{16} = \frac{180}{192}$

5. _____

Solve each proportion.

6. $\frac{x}{5} = \frac{105}{75}$

6. _____

7. $\frac{4.2}{a} = \frac{8}{5}$

7. _____

8. $\frac{18}{30} = \frac{m}{4}$

8. _____

9. $\frac{p}{15} = \frac{11}{12}$

9. _____

10. $\frac{x}{54} = \frac{5}{6}$

10. _____

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Date _____

11. $\frac{x}{4} = \frac{x-3}{2}$

11. _____

12. $\frac{y+1}{5} = \frac{3y}{10}$

12. _____

13. $\frac{2x-3}{x+5} = \frac{5}{9}$

13. _____

Use a proportion to solve each problem.

14. An office building leases space monthly for \$32.50 for each 50 square foot. How much would it cost to lease a 1,050 square foot space?

14. _____

15. A store advertises 4 oversized bath towels on sale for \$25. How much would it cost to purchase 10 bath towels?

15. _____

16. In a newspaper survey 4 out of 5 people that responded said they preferred bottled water to the local tap water. If 40,000 people responded, how many preferred bottled water?

16. _____

17. The ratio of female nurses to male nurses at Mercy General Hospital is 7 to 2. If there are 405 nurses on staff, how many are males? How many are females?

17. _____

18. One instructor's pass rate for her basic algebra classes is 85%. This means that 17 out of every 20 of her students will pass. One semester she has 160 enrolled in her classes. How many could be expected to pass her class?

18. _____