

## Practice

### Simplify.

$1. \frac{10}{15} =$

$2. \frac{6}{9} =$

$3. \frac{4}{12} =$

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

$5. \frac{6}{18} =$

$6. \frac{4}{20} =$

$7. \frac{4}{24} =$

$8. \frac{4}{16} =$

$9. \frac{8}{12} =$

$10. \frac{9}{18} =$

$11. \frac{6}{12} =$

$12. \frac{14}{16} =$

$13. \frac{15}{25} =$

$14. \frac{6}{10} =$

$15. \frac{3}{12} =$

$16. \frac{16}{20} =$

$17. \frac{9}{12} =$

$18. \frac{24}{48} =$

$19. \frac{8}{16} =$

$20. \frac{8}{32} =$

$21. \frac{10}{12} =$

$22. \frac{16}{24} =$

$23. \frac{4}{8} =$

$24. \frac{27}{36} =$

$25. \frac{12}{16} =$

$26. \frac{16}{48} =$

$27. \frac{14}{21} =$

$28. \frac{20}{25} =$

$29. \frac{40}{100} =$

$30. \frac{26}{52} =$

### Now Try This!

To simplify fractions, we find the **greatest common factor** of the numerator and the denominator. The greatest common factor is the greatest common factor of two or more numbers. For example, the fraction  $\frac{8}{12}$  can be simplified by finding the **prime factors** of each. Prime factors are **prime numbers** that when multiplied make a product. A prime number is a number greater than zero that has exactly two factors, 1 and the number itself.

$$\begin{array}{l} 8 \\ 4 \times 2 \\ 2 \times 2 \times 2 \end{array}$$

$$\begin{array}{l} 12 \\ 4 \times 3 \\ 2 \times 2 \times 3 \end{array}$$

8 and 12 have  $2 \times 2$  in common, so the greatest common factor is \_\_\_\_\_.  
 $\frac{8}{12} \div \frac{4}{4} = \frac{2}{3}$

**Find the prime factors.**

1. 36

2. 24

3. 21