

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.

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

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

8 and 12 have 2×2 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