

Chapter 5 Section 1: Reducing Algebraic Fractions

Problems

Reduce each fraction to lowest terms.

1. $\frac{14}{18} =$ _____

2. $\frac{15}{25} =$ _____

3. $\frac{24}{36} =$ _____

4. $\frac{-12}{32} =$ _____

5. $\frac{17}{-51} =$ _____

6. $\frac{-27}{72} =$ _____

7. $\frac{18}{-45} =$ _____

8. $\frac{-26}{-39} =$ _____

9. $\frac{-4}{-24} =$ _____

Find the prime factorization of each number.

10. 24

11. 51

12. 81

13. 252

14. 750

15. 116

16. 235

17. 840

18. 880

Reduce each algebraic fraction to lowest terms.

19. $\frac{x}{x^2} =$ _____

20. $\frac{t^5}{t^9} =$ _____

21. $\frac{12x}{18} =$ _____

22. $\frac{2a}{4a^3} =$ _____

23. $\frac{5x^2}{x^4} =$ _____

24. $\frac{16r^8}{-4r^6} =$ _____

25. $\frac{m^3n^2}{mn^5} =$ _____

26. $\frac{x^5y^7}{x^2y} =$ _____

27. $\frac{3ab^4}{6a^3b^8} =$ _____

28. $\frac{-81u^9w^4}{27u^5w^7} =$ _____

29. $\frac{p^9q^4r^7}{p^5q^{10}r} =$ _____

30. $\frac{-15ab^5c^3}{-18a^4bc^2} =$ _____

31. $\frac{14x^3y^8z^4}{-28x^6y^4z^3} =$ _____