

SECTION 7.1

1. 2 3. 27 5. $\frac{1}{9}$ 7. 4 9. $(-25)^{5/2}$ is not a real number. 11. $\frac{343}{125}$ 13. x 15. $y^{1/2}$ 17. $x^{1/12}$
19. $a^{7/12}$ 21. $\frac{1}{a}$ 23. $\frac{1}{y}$ 25. $y^{3/2}$ 27. $\frac{1}{x}$ 29. $\frac{1}{x^4}$ 31. a 33. $x^{3/10}$ 35. a^3 37. $\frac{1}{x^{1/2}}$ 39. $y^{1/9}$
41. x^4y 43. $x^6y^3z^9$ 45. $\frac{x}{y^2}$ 47. $\frac{x^{3/2}}{y^{1/4}}$ 49. $\frac{x^2}{y^8}$ 51. $\frac{1}{x^{11/12}}$ 53. $\frac{1}{y^{5/2}}$ 55. $\frac{1}{b^{7/8}}$ 57. a^5b^{13} 59. $\frac{m^2}{4n^{3/2}}$
61. $\frac{y^{17/2}}{x^3}$ 63. $\frac{16b^2}{a^{1/3}}$ 65. $y^2 - y$ 67. $a - a^2$ 69. x^{4n} 71. $x^{3n/2}$ 73. $y^{3n/2}$ 75. x^{2n^2} 77. $x^{2n}y^n$
79. $x^{4n}y^{2n}$ 81. $\sqrt[4]{3}$ 83. $\sqrt{a^3}$ 85. $\sqrt{32t^5}$ 87. $-2\sqrt[3]{x^2}$ 89. $\sqrt[3]{a^4b^2}$ 91. $\sqrt[5]{a^6b^{12}}$ 93. $\sqrt[4]{(4x - 3)^3}$
95. $\frac{1}{\sqrt[3]{x^2}}$ 97. $14^{1/2}$ 99. $x^{1/3}$ 101. $x^{4/3}$ 103. $b^{3/5}$ 105. $(2x^2)^{1/3}$ 107. $-(3x^5)^{1/2}$ 109. $3xy^{2/3}$
111. $(a^2 - 2)^{1/2}$ 113. x^8 115. $-x^4$ 117. xy^3 119. $-x^5y$ 121. $4a^2b^6$ 123. $\sqrt{-16x^4y^2}$ is not a real number.
125. $3x^3$ 127. $-4x^3y^4$ 129. $-x^2y^3$ 131. x^4y^2 133. $3xy^5$ 135. $2ab^2$ 137a. False; 2 b. True c. True
- d. False; $(a^n + b^n)^{1/n}$ e. False; $a + 2a^{1/2}b^{1/2} + b$ f. False; $a^{n/m}$