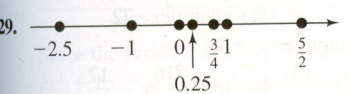
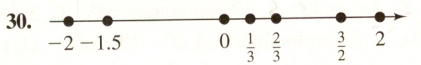
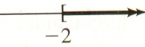
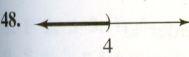
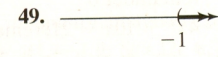
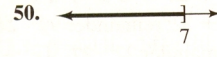


APPENDIX Review

A.1 Assess Your Understanding (page 959)

1. variable 2. origin 3. strict 4. base; exponent or power 5. 5 6. F 7. F 8. F
 9. 4 10. -3 11. -28 12. -2 13. $\frac{4}{5}$ 14. $-\frac{1}{5}$ 15. 0 16. $-\frac{7}{3}$ 17. $x = 0$ 18. $x = 0$ 19. $x = 3$ 20. None 21. None
 22. $x = 1, x = -1$ 23. $x = 1, x = 0, x = -1$ 24. $x = 0$ 25. $\{x|x \neq 5\}$ 26. $\{x|x \neq -4\}$ 27. $\{x|x \neq -4\}$ 28. $\{x|x \neq 6\}$
 29.  30.  31. $>$ 32. $<$ 33. $>$ 34. $<$ 35. $>$ 36. $>$
 37. = 38. $>$ 39. $<$ 40. = 41. $x > 0$ 42. $z < 0$ 43. $x < 2$ 44. $y > -5$ 45. $x \leq 1$ 46. $x \geq 2$ 47. 
 48.  49.  50.  51. 1 52. 5 53. 5 54. 1 55. 1 56. -1 57. 22 58. 5
 59. 2 60. 13 61. 1 62. 3 63. 2 64. 3 65. 6 66. 2 67. 16 68. -16 69. $\frac{1}{16}$ 70. $-\frac{1}{16}$ 71. $\frac{1}{9}$ 72. 4 73. 9 74. 8 75. 5
 76. 6 77. 4 78. 3 79. $\frac{1}{64x^6}$ 80. $-\frac{1}{4x^2}$ 81. $\frac{x^4}{y^2}$ 82. $\frac{y^3}{x^3}$ 83. $\frac{1}{x^3y}$ 84. $\frac{1}{x^3y}$ 85. $-\frac{8x^3z}{9y}$ 86. $\frac{1}{2x^6y^2z}$ 87. $\frac{16x^2}{9y^2}$ 88. $\frac{216x^6}{125y^6}$
 89. $A = lw$ 90. $P = 2(l + w)$ 91. $C = \pi d$ 92. $A = \frac{1}{2}bh$ 93. $A = \frac{\sqrt{3}}{4}x^2$ 94. $P = 3x$ 95. $V = \frac{4}{3}\pi r^3$ 96. $S = 4\pi r^2$
 97. $V = x^3$ 98. $S = 6x^2$ 99. (a) $2 \leq 5$ (b) $6 > 5$ 100. (a) $6 \leq 8$ (b) $11 > 8$ 101. (a) Yes (b) No 102. (a) $1.6 \geq 1.5$
 (b) $1.4 < 1.5$ 103. No; $\frac{1}{3}$ is larger; 0.000333... 104. No; $\frac{2}{3}$ is larger; 0.000666... 105. No 106. 3.15 or 3.16

A.2 Assess Your Understanding (page 964)

1. right; hypotenuse 2. $A = \frac{1}{2}bh$ 3. $C = 2\pi r$ 4. T 5. T 6. F 7. 13 8. 10 9. 26 10. 5 11. 25 12. 50 13. Right triangle; 5
 14. Right triangle; 10 15. Not a right triangle 16. Not a right triangle 17. Right triangle; 25 18. Right triangle; 26 19. Not a right triangle
 20. Not a right triangle 21. 8 in^2 22. 36 cm^2 23. 4 in^2 24. 18 cm^2 25. $A = 25\pi \text{ m}^2$; $C = 10\pi \text{ m}$ 26. $A = 4\pi \text{ ft}^2$; $C = 4\pi \text{ ft}$
 27. $V = 224 \text{ ft}^3$; $S = 232 \text{ ft}^2$ 28. $V = 288 \text{ in}^3$; $S = 280 \text{ in}^2$ 29. $V = \frac{256}{3}\pi \text{ cm}^3$; $S = 64\pi \text{ cm}^2$ 30. $V = 36\pi \text{ ft}^3$; $S = 36\pi \text{ ft}^2$
 31. $V = 648\pi \text{ in}^3$; $S = 306\pi \text{ in}^2$ 32. $V = 576\pi \text{ in}^3$; $S = 272\pi \text{ in}^2$ 33. π square units 34. $4 - \pi$ square units 35. 2π square units
 36. $2\pi - 4$ square units 37. About 16.8 ft 38. About 1.6 revolutions 39. 64 ft^2 40. 12 ft^2 41. $24 + 2\pi \approx 30.28 \text{ ft}^2$; $16 + 2\pi \approx 22.28 \text{ ft}^2$
 42. $69\pi \approx 216.77 \text{ ft}^2$; $26\pi \approx 81.68 \text{ ft}$ 43. About 5.477 mi 44. About 3.000 mi 45. From 100 ft: 12.247 mi; From 150 ft: 15.000 mi
 46. $a^2 + b^2 = (m^2 - n^2)^2 + (2mn)^2 = m^4 - 2m^2n^2 + n^4 + 4m^2n^2 = m^4 + 2m^2n^2 + n^4 = (m^2 + n^2)^2 = c^2$

A.3 Assess Your Understanding (page 975)

1. 4; 3 2. $x^4 - 16$ 3. $x^3 - 8$ 4. F 5. T 6. F 7. $3x(x - 2)(x + 2)$ 8. prime 9. T 10. F 11. in lowest terms
 12. least common multiple 13. T 14. F 15. $10x^5 + 3x^3 - 10x^2 + 6$ 16. $9x^2 - 7x - 5$ 17. $2ax + a^2$ 18. $-2ax + a^2$
 19. $2x^2 + 17x + 8$ 20. $2x^2 + 3x - 2$ 21. $x^4 - x^2 + 2x - 1$ 22. $x^4 - x^3 - x^2 + 5x + 4$ 23. $6x^2 + 2$ 24. $-3x^2 - 9x - 7$
 25. $(x - 6)(x + 6)$ 26. $(x - 3)(x + 3)$ 27. $(1 - 2x)(1 + 2x)$ 28. $(1 - 3x)(1 + 3x)$ 29. $(x + 2)(x + 5)$ 30. $(x + 1)(x + 4)$
 31. Prime 32. Prime 33. Prime 34. $(x + 6)^2$ 35. $(5 - x)(3 + x)$ 36. Prime 37. $3(x + 2)(x - 6)$ 38. $x(x - 2)(x + 10)$
 39. $y^2(y + 5)(y + 6)$ 40. $3y(y - 8)(y + 2)$ 41. $(2x + 3)^2$ 42. $(3x - 2)^2$ 43. $(3x + 1)(x + 1)$ 44. $(4x - 1)(x + 1)$
 45. $(x^2 + 9)(x - 3)(x + 3)$ 46. $(x^2 + 1)(x - 1)(x + 1)$ 47. $(x - 1)^2(x^2 + x + 1)^2$ 48. $(x + 1)^2(x^2 - x + 1)^2$ 49. $x^5(x - 1)(x + 1)$
 50. $x^3(x - 1)(x^2 + x + 1)$ 51. $(5 - 4x)(1 + 4x)$ 52. $(5 + 16x)(1 - x)$ 53. $(2y - 3)(2y - 5)$ 54. $(3y - 1)(3y + 4)$
 55. $(1 + x^2)(1 - 3x)(1 + 3x)$ 56. $2(2 + x^2)(1 - 2x)(1 + 2x)$ 57. $(x - 6)(x + 3)$ 58. $(5 + x)(3x - 7)$ 59. $(x + 2)(x - 3)$
 60. $(x - 1)(x - 3)$ 61. $3x(2 - x)^3(4 - 5x)$ 62. $6x(1 - x)^3(1 + x)^3(1 - 5x^2)$ 63. $(x + 2)(x - 1)(x + 1)$
 64. $(x - 3)(x - 1)(x + 1)$ 65. $(x - 1)(x + 1)(x^2 - x + 1)$ 66. $(x + 1)^2(x^2 - x + 1)$ 67. $\frac{3(x - 3)}{5x}$ 68. $-\frac{(3x + 5)(1 + x)}{4}$
 69. $\frac{x(2x - 1)}{x + 4}$ 70. $\frac{6(x + 1)}{x(2x - 1)}$ 71. $\frac{5x}{(x - 6)(x - 1)(x + 4)}$ 72. $\frac{x^2 + 7x - 1}{(x - 3)(x + 8)}$ 73. $\frac{2(x + 4)}{(x - 2)(x + 2)(x + 3)}$ 74. $\frac{2x + 1}{(x - 1)^2}$
 75. $\frac{x^3 - 2x^2 + 4x + 3}{x^2(x + 1)(x - 1)}$ 76. $\frac{3x^3 - 5x^2 + 2x + 1}{x^2(x - 1)^2}$ 77. $\frac{-1}{x(x + h)}$ 78. $\frac{-(2x + h)}{x^2(x + h)^2}$ 79. $2(3x + 4)(9x + 13)$ 80. $(2x + 1)(30x - 19)$