

**Chapter
2****Cumulative Review** (continued)**Factor the polynomial.**

74. $y^2 + 7y + 10$

75. $x^2 + 6x + 8$

76. $w^2 + 11w + 18$

77. $x^2 - 6x + 8$

78. $d^2 - 7d + 12$

79. $z^2 - 12z + 20$

80. $m^2 + 2m - 15$

81. $z^2 + 2z - 24$

82. $x^2 - 10x - 11$

Solve the equation.

83. $t^2 + 5t + 4 = 0$

84. $y^2 - 3y - 44 = 10$

Factor the polynomial.

85. $2x^2 + 22x + 60$

86. $5y^2 + 25y + 20$

87. $6w^2 + 66w + 60$

88. $2t^2 + 5t + 2$

89. $3u^2 - 8u + 4$

90. $-6z^2 - 25z - 25$

91. $4x^2 - 17x + 4$

92. $4r^2 - 35r + 49$

93. $5g^2 - 18g + 9$

94. You throw a ball off the top of a building. The height h (in feet) of the ball above the ground is modeled by $h = -16t^2 + 76t + 20$, where t is the time (in seconds). How long is the ball in the air?

Factor the polynomial.

95. $x^2 - 100$

96. $h^2 - 36$

97. $9b^2 - 25$

98. $k^2 + 8k + 16$

99. $a^2 - 30a + 225$

100. $100g^2 + 180g + 81$

Solve the equation.

101. $z^2 - 64 = 0$

102. $y^2 - 14y + 49 = 0$

Factor the polynomial completely.

103. $25x^3 + 5x^2 + 30x + 6$

104. $28y^3 + 16y^2 - 21y - 12$

105. $8w^3 - 64w^2 + w - 8$

106. $15x^3 + 21x^2 - 10x - 14$