

Factor each polynomial.

72. $5h - 15h^4$

$5h(1 - 3h^3)$

73. $4x^5 + 17x^2 - 31x$

$x(4x^4 + 17x - 31)$

74. $2x(x-4) + 9(x-4)$

$(2x+9)(x-4)$

75. $3y^2 + 18y + y + 6$

$3y(y+6) + 1(y+6)$

$(3y+1)(y+6)$

76. $n^3 + n - 4n^2 - 4$

$n(n^2+1) - 4(n^2+1)$

$(n-4)(n^2+1)$

77. $m - m^2 + m - 1$

$-m^2 + m + m - 1$

$-m^2 + 2m - 1$

$-(m^2 - 2m + 1)$

$-(m-1)(m-1)$

$-(m-1)^2$

Factor each trinomial.

78. $x^2 + 6x + 5$

$(x+1)(x+5)$

79. $x^2 + x - 20$

$(x-4)(x+5)$

80. $x^2 - 26x + 120$

$(x-6)(x-20)$

81. $x^2 - 5x - 36$

$(x-9)(x+4)$

82. $x^2 + 10x + 25$

$(x+5)^2$

83. $x^2 + 6x - 7$

$(x+7)(x-1)$

84. $3x^2 + 10x + 7$

$(3x+7)(x+1)$

85. $6x^2 + 17x - 14$

$(3x-2)(2x+7)$

86. $-6x^2 - x + 2$

$-(6x^2 + x - 2)$

$-(3x-2)(x+1)$

Factor each problem completely.

87. $4x^2 - 64$

$4(x^2 - 16)$

$4(x-4)(x+4)$

88. $3d^5 - 6d^4 - 24d^3$

$3d^3(d^2 - 2d - 8)$

$3d^3(d-4)(d+2)$

Evaluate each expression for the given values. $x = -2$, $y = 5$, and $z = 3$

89. $2x - y$

(-9)

90. $x^2 + 4z$

(16)

91. $5x - yz$

(-25)