

Algebra 3 Assignment # 7

Factor each of the following completely please.

(1) $9x^2 - 25$

(9) $x^2 - 13x + 30$

(2) $x^2 - 121y^4$

(10) $x^2 + 13x - 30$

(3) $x^5 - 81x$

(11) $24x^2 - 23x - 12$

(4) $x^3 - 125$

(12) $24x^2 + 26x - 15$

(5) $2x^4 + 16xy^3$

(13) $36x^2 - 33x - 20$

(6) $8x^3y^6 + z^9$

(14) $72x^3 + 80x^2 + 22x$

(7) $x^8 - 1$

(15) $(x + 1)^2 + 5(x + 1) - 6$

(8) $x^9 - 1$

(16) $9x^4 - 85x^2 + 36$

Algebra 3 Assignment # 7

Answers

(1) $(3x - 5)(3x + 5)$

(9) $(x - 10)(x - 3)$

(2) $(x + 11y^2)(x - 11y^2)$

(10) $(x + 15)(x - 2)$

(3) $x(x^2 + 9)(x + 3)(x - 3)$

(11) $(8x + 3)(3x - 4)$

(4) $(x - 5)(x^2 + 5x + 25)$

(12) $(12x - 5)(2x + 3)$

(5) $2x(x + 2y)(x^2 - 2xy + 4y^2)$

(13) $(12x + 5)(3x - 4)$

(6) $(2xy^2 + z^3)(4x^2y^4 - 2xy^2z^3 + z^6)$

(14) $2x(2x + 1)(18x + 11)$

(7) $(x^4 + 1)(x^2 + 1)(x + 1)(x - 1)$

(15) $x(x + 7)$

(8) $(x - 1)(x^2 + x + 1)(x^6 + x^3 + 1)$

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