

BADAA AL MUTAWA SCHOOL

MATHEMATICS — FACTORING POLYNOMIALS-M11L6 – Factoring Quadratic Trinomials

Student Name: _____	Grade: _____
Date: _____	Subject: Mathematics
Subject Teacher: Abdulkader Amro	Total Questions: 28

Choose the one correct answer for each question.

SECTION A • FACTOR EACH POLYNOMIAL, IF POSSIBLE

37. $n^2 + 3n - 18$

A. $(n + 3)(n - 6)$

B. $(n - 6)(n - 3)$

C. $(n + 6)(n - 3)$

D. $(n + 9)(n - 2)$

38. $x^2 + 2x - 8$

A. $(x + 8)(x - 1)$

B. $(x - 4)(x - 2)$

C. $(x + 2)(x - 4)$

D. $(x + 4)(x - 2)$

39. $r^2 + 4r - 12$

A. $(r - 4)(r + 3)$

B. $(r + 4)(r - 3)$

C. $(r + 2)(r - 6)$

D. $(r + 6)(r - 2)$

40. $x^2 - x - 12$

A. $(x - 3)(x + 4)$

B. $(x - 4)(x + 3)$

C. $(x - 4)(x - 3)$

D. $(x + 4)(x + 3)$

41. $w^2 - w - 6$

A. $(w + 3)(w + 2)$

B. $(w - 3)(w - 2)$

C. $(w - 3)(w + 2)$

D. $(w - 2)(w + 3)$

42. $y^2 - 6y + 8$

A. $(y - 1)(y - 8)$

B. $(y - 2)(y - 4)$

C. $(y - 2)(y + 4)$

D. $(y + 2)(y + 4)$

43. $t^2 - 15t + 56$

A. $(t - 7)(t - 8)$

B. $(t - 4)(t - 14)$

C. $(t - 6)(t - 9)$

D. $(t + 7)(t + 8)$

44. $-4 - 3m + m^2$

A. $(m + 4)(m + 1)$

B. $(m - 4)(m - 1)$

C. $(m + 4)(m - 1)$

D. $(m - 4)(m + 1)$

45. $2x^2 + 5x + 2$

A. $(2x + 2)(x + 1)$

B. $(2x + 1)(x - 2)$

C. $(2x + 1)(x + 1)$

D. $(2x + 1)(x + 2)$

46. $3n^2 + 5n + 2$

A. $(3n + 2)(n + 1)$

B. $(3n + 2)(n + 2)$

C. $(3n + 1)(n + 2)$

D. $(3n + 1)(n + 1)$

47. $3g^2 - 7g + 2$

A. $(3g - 1)(g + 2)$

B. $(3g + 1)(g - 2)$

C. $(3g - 1)(g - 2)$

D. $(3g - 2)(g - 1)$

48. $2t^2 - 11t + 15$

A. $(2t - 5)(t + 3)$

B. $(2t - 5)(t - 3)$

C. $(2t - 3)(t - 5)$

D. $(2t + 5)(t - 3)$

49. $4x^2 - 3x - 3$

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

B. $(4x - 1)(x - 3)$

C. $(4x + 3)(x - 1)$

D. $(4x - 3)(x + 1)$

50. $4b^2 + 15b - 4$

A. $(2b - 1)(2b + 4)$

B. $(4b - 1)(b - 4)$

C. $(4b - 1)(b + 4)$

D. $(4b + 1)(b - 4)$

61. $q^2 + 11qr + 18r^2$

A. $(q + 18r)(q + r)$

B. $(q - 2r)(q - 9r)$

C. $(q + 2r)(q + 9r)$

D. $(q + 3r)(q + 6r)$

62. $x^2 - 14xy - 51y^2$

A. $(x + 17y)(x - 3y)$

B. $(x - 6y)(x + 8y)$

C. $(x - 17y)(x + 3y)$

D. $(x - 17y)(x - 3y)$

63. $x^2 - 6xy + 5y^2$

A. $(x - 2y)(x - 3y)$

B. $(x - 5y)(x + y)$

C. $(x + y)(x + 5y)$

D. $(x - y)(x - 5y)$

64. $a^2 + 10ab - 39b^2$

A. $(a + 39b)(a - b)$

B. $(a + 13b)(a - 3b)$

C. $(a + 3b)(a - 13b)$

D. $(a - 13b)(a - 3b)$

65. $-6x^2 - 23x - 20$

A. $-(6x + 5)(x + 4)$

B. $-(3x + 4)(2x + 4)$

C. $-(3x + 5)(2x + 4)$

D. $-(3x + 4)(2x + 5)$

66. $-4x^2 - 15x - 14$

A. $-(4x + 2)(x + 7)$

B. $-(4x - 7)(x + 2)$

C. $-(4x + 7)(x + 2)$

D. $-(2x + 7)(2x + 2)$

67. $-5x^2 + 18x + 8$

A. $-(5x - 2)(x + 4)$

B. $-(5x + 2)(x + 4)$

C. $-(5x + 2)(x - 4)$

D. $-(5x + 4)(x - 2)$

68. $-6x^2 + 31x - 35$

A. $-(3x + 5)(2x - 7)$

B. $-(6x - 5)(x - 7)$

C. $-(3x - 5)(2x - 7)$

D. $-(3x - 7)(2x - 5)$

69. $-4x^2 + 5x - 12$

A. prime

B. $-(4x + 3)(x - 4)$

C. $-(2x - 3)(2x + 4)$

D. $-(4x - 3)(x + 4)$

70. $-12x^2 + x + 20$

A. $-(3x - 4)(4x - 5)$

B. $-(3x - 4)(4x + 5)$

C. $-(6x - 5)(2x + 4)$

D. $-(3x + 4)(4x - 5)$

71a. $3x^2 - 15x - 150$

A. $3(x + 10)(x - 5)$

B. $3(x - 5)(x + 10)$

C. $(3x + 15)(x - 10)$

D. $3(x + 5)(x - 10)$



71b. What does each factor in the factored expression for the volume represent?

A. 3, $(x + 10)$, and $(x - 5)$ are the three factors.

B. 3, $(x + 5)$, and $(x + 10)$ are the three factors.

C. 3, $(x - 5)$, and $(x + 10)$ are the three factors.

D. 3, $(x + 5)$, and $(x - 10)$ are the three factors of the volume expression.

72a. $h(t) = -16t^2 + 32t + 16$

A. $-16t^2 + 16t + 32$

B. $-16t^2 + 32t - 16$

C. $16t^2 + 32t + 16$

D. $-16t^2 + 32t + 16$

72b. $-16t^2 + 32t + 16$

A. $-16(t - 1 - \sqrt{2})(t - 1 + \sqrt{2})$

B. $-16(t - 2)(t + 2)$

C. $-8(t - 1 - \sqrt{2})(t - 1 + \sqrt{2})$

D. $16(t - 1 - \sqrt{2})(t - 1 + \sqrt{2})$