


L3 - Worksheet KEY

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	<p style="text-align: center;">FOUNDATIONS & PRE-CALCULUS MATHEMATICS 10 Unit 3 - Polynomial Operations Unit Review Assignment</p>	<p>Name <u>KEY</u></p>
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Adding and Subtracting Polynomials

1. $(4x^2 + 3xy - y^2) + (x^2 - 8xy - 2y^2)$
 $= 5x^2 - 5xy - 3y^2$

2. $(4x^3 + 6x^2 - 8x) - (x^3 - 2x^2 + 12x)$
 $= 3x^3 + 8x^2 - 20x$

Multiplying a Monomial and a Polynomial

3. $-3ab^2(a^3b^2 - 2a^2b)$
 $= -3a^4b^4 + 6a^3b^3$

4. $-2xy^2(2x^4 - 5x^2y^2 - 3y^4)$
 $= -4x^5y^2 + 10x^3y^4 + 6xy^6$

Multiplying Binomials

5. $(3x + 1)(2x - 4) = 6x^2 - 10x - 4$

7. $(5x + 3y)(2x - 4y) = 10x^2 - 14xy - 12y^2$

6. $(x - 1)(3x + 2) = 3x^2 - x - 2$

8. $(3a - 7b)(9a - 8b) = 27a^2 - 87ab + 56b^2$

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Multiplying a Binomial by a Trinomial

9. $(x + 2)(x^2 + 5x - 3) = x^3 + 7x^2 + 7x - 6$

12. $(4a - 5)(a^2 - 7a - 2) = 4a^3 - 33a^2 + 27a + 10$

10. $(3n - 1)(2n^2 + 4n + 4) = 6n^3 + 10n^2 + 8n - 4$

13. $(3n - 4)(4n^2 + 2n + 3) = 12n^3 - 10n^2 + n - 12$

11. $(2a + 3)(6a^2 - 2a + 1) = 12a^3 + 14a^2 - 8a + 3$

14. $(x + 8)(6x^2 - x - 4) = 6x^3 + 47x^2 - 12x - 32$

Multiplying Three Binomials

15. $(x - 3)(x + 5)(2x - 1) = 2x^3 + 3x^2 - 32x + 15$

16. $(2x - 1)(x - 3)(3x + 4) = 6x^3 - 13x^2 - 19x + 12$

Combined Operations

17. $-4(2x - 4) - 2x(3x + 2) = -6x^2 - 12x + 16$

19. $(4x - 3)(2x + 6) - (2x - 7)(x + 2) = 6x^2 + 21x - 4$

18. $(2x - 1)(3x + 4) + 3(x + 5) = 6x^2 + 8x + 11$

20. $(x - 3)(-2x + 5) - 3(x - 5)(x + 3) = -5x^2 + 17x + 30$