Lesson 7.2 Multiplying Polynomials Homework

DISTRIBUTING AND COMBINING LIKE TERMS:

DISTRIBUTE, AND THE COMBINE LIKE TERMS. *REMEMBER, ADD THE EXPONENTS WHEN MULTIPLYING VARIABLES.*

1. $9x - 4(6 - 3x)$ $9x - 24 + 12x$ $21x - 24$

2. $5(3b - 2a) - 7b$ $15b - 10a - 7b$ $-10a + 8b$

3. $2(2x + 6) + 3(5x - 7)$ $4x + 12 + 15x - 21$ $19x - 9$

4. $6(4a - 2b) - 2(9b - 7a)$ $24a - 12b - 18b + 14a$ $38a - 30b$

5. $2y^2(7y + 3x) - 5y^3$ $14y^3 + 6xy^2 - 5y^3$ $6xy^2 + 9y^3$

6. $3(x^3 + 4x^2) + 2x(x - 7)$ $3x^3 + 12x^2 + 2x^2 - 14x$ $3x^3 + 14x^2 - 14x$

7. $4(3d^2 + 5d) - d(d^2 - 7d + 12)$ $12d^2 + 20d - d^3 - 7d^2 - 12d$ $-d^3 + 12d^2 + 8d$

8. $3(2t^2 - 4t - 15) + 6t(5t + 2)$ $6t^2 - 12t - 45 + 30t^2 + 12t$ $36t^2 - 45$

MULTIPLYING POLYNOMINALS (FOIL):

DISTRIBUTE FIRST, OUTTER, INNER, LAST, AND THEN COMBINE LIKE TERMS.

9. $(m - 3)(m + 1)$ $m^2 + m - 3m - 3$ $m^2 - 2m - 3$

10. $(2a - 3)(a - 2)$ $2a^2 - 4a - 3a + 4$ $2a^2 - 7a + 4$

11. $(3x + 1)(x + 2)$ $3x^2 + 6x + x + 2$ $3x^2 + 7x + 2$

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

13. $(3a - b)(2a + 4b)$ $6a^2 + 12ab - 2ab - 4b^2$ $6a^2 + 10ab - 4b^2$

14. $(2x + y)(3x - 2y)$ $6x^2 - 4xy + 3xy - 2y^2$ $6x^2 - xy - 2y^2$

15. $(2b + 1)(b^2 - 5b + 4)$ $2b^3 - 10b^2 + 8b + b^2 - 5b + 4$ $2b^3 - 9b^2 + 3b + 4$

16. $(y - 5)(4y^2 - 3y + 2)$ $4y^3 - 3y^2 + 2y - 20y^2 + 15y - 10$ $4y^3 - 23y^2 + 17y - 10$