

Name: _____ Date: _____

Adding and subtracting polynomials: Simplify each expression

1. $x^2 + 2x - 3 + 2x^2 - 7x + 9$

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

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

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

5. $(3a^2 + a - 4) + (a^2 - 2a - 1)$

6. $(t^2 - 1) + (2t + 3)$

7. $(2x^2 + 3) + (x^2 - 2x - 1)$

8. $(2x^2 + 5xy + 3y^2) + (8x^2 - 7y^2)$

9. $(3z^2 + 5) - (-4z + 2z^2) - (z - 3)$

10. $(3x - 2) - (5x - 4) + (19 + 2x)$

11. $(10x^2 + 8x) - (6 + 3x^2) + (2x - 9)$

12. $(6m^2 + 7) - (-2m^2) + (2m - 3)$

Directions: Multiply the following polynomials.

13. $(x-3)(x-9)$

14. $(w+10)(w-3)$

15. $(5-r)(5+r)$

16. $(2m+3)(4+6m)$

17. $(3x+1)(2x-5)$

18. $(2x+5)^2$

19. $6m(4m^4+2m-1)$

20. $10x^3(3x^5-2x^2-2x)$

21. $5x^3(4x^4-3x+1)$

22. $5(x-5y)(2x+16y)$
