

Name _____

Algebra Unit 3-6 Review Worksheet A: Operations on Polynomials
ALWAYS LEAVE YOUR ANSWER IN STANDARD FORM!!

Complete the chart.

	Simplify the Polynomial	Degree	Leading Coefficient	Constant
1. $5c^3 - 7c^2 - 3c^3 + 2c - 2c^3$				
2. $-4y + 3y^3 + 6y^4 - 3y^3 - 7y + 2$				

Add or Subtract then complete the chart.

	Simplify the Polynomial	Degree	Leading Coefficient	Constant
3. $(7a^4 - 6a^3 + 1) + (3a^3 - 2a + 1)$				
4. $(0.4x^2 - 0.3x + 0.1) + (-0.9x^2 + 0.4x - 0.6)$				
5. $(c^3 + 2c^2 - 5c) - (2c^3 + 4c - 1)$				

Name _____

Algebra Unit 3-6 Review Worksheet A: Operations on Polynomials

Multiply.

6. $2a^2(6a^2 - 4a - 2)$

12. $(a + 8)^2$

7. $(4x - 9)^2$

13. $(2x + 1)(2x - 1)$

8. $4x^2y(-3x^2y + xy - 9xy^2)$

14. $(x^5 + 6)^2$

9. $(x + 3)(x - 7)$

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

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

16. $(5x - 6)^2$

11. $(2x + 3)(5x + 1)$

17. $(r^3 - 2)^2$

Name _____

Algebra Unit 3-6 Review Worksheet A: Operations on Polynomials

Simplify.

18. $-5c^2 - 7c + 6c(c - 3)$

19. $c^n \cdot c^{3n+2}$

20. $x^{m-1} \cdot x \cdot x^m$

21. $10x - 3(4x^2 + 2x - 10)$

Evaluate using direct substitution.

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

23. $f(x) = 15x^{10} - 2x - 3$ Find $f(-1)$

Name _____

Algebra Unit 3-6 Review Worksheet A: Operations on Polynomials

24. $f(x) = 12x^5 - 3x^4 + 1$ Find $f(0)$

25. $f(x) = 15x - 6$ Find $f(2)$

Evaluate using synthetic substitution.

26. $f(x) = 4x^2 - 7$ Find $f(2)$

27. $f(x) = 7x^3 - 3x^2 + 2x - 1$ Find $f(-1)$

28. $f(x) = 12x^2 + x - 10$ Find $f(2)$

Name _____

Algebra Unit 3-6 Review Worksheet A: Operations on Polynomials

29. $f(x) = x^2 - 5x - 17$ Find $f(3)$

Evaluate. Use either direct or synthetic substitution.

30. $f(x) = 12x^5 - 3$ Find $f(-1)$

31. $f(x) = 7x^3 + 6x - 9$ Find $f(2)$

32. $f(x) = x^{21} - x - 1$ Find $f(-1)$

33. $f(x) = 16x^3 - 2x - 6$ Find $f(0)$