

Math Sheet

Name _____ Score _____ Teacher _____ Date _____

Basic Polynomial Operations

Student Worksheet

1. Name each polynomial

1. Name by degree and terms.

$$5qx^7y^7 + 9qx^7y$$

2. Name by degree and terms.

$$4x^8 - 7x^7 - 7x^6 - 5x^4 - 4x$$

3. Name by degree and terms.

$$3x^{12} - 3x^9 - 5x^6 + 6x^4$$

4. Name by degree and terms.

$$9b^5r^3 + 7b^3r^3 - 8r^6$$

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2. Simplify grouped polynomials

5. Simplify.

$$(7x^4 + 2x) + (2x^7 - 5x^4 - 4x^3) + (-8x^3 - 4x^2 - 6)$$

6. Simplify.

$$(-x^7 - x^5 + 3x^3) - (x^7 - 3x^5)$$

7. Simplify.

$$(x^7 + 7x^2 - 5x) - (-x^7 - 6x^4 - 6x) + (-8x^5 + 3x^4 - 2)$$

8. Simplify.

$$(-3x^7 + x^2) - (-9x^7 + 8x^4)$$

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3. Multiply quadratic polynomials

9. Expand and simplify.

$$(8x^2 + 2x)(9x^2 + 9)$$

10. Expand and simplify.

$$(x^2 + 4x + 3)(x^2 + 8x + 6)$$

11. Expand and simplify.

$$(x^2 + 9x)(x^2 + 7)$$

12. Expand and simplify.

$$(x^2 + 9x)(x^2 + 2x + 3)$$
