

Name: _____

Date: _____

UNIT 2 • POLYNOMIAL FUNCTIONS

Lesson 1: Polynomial Structures and Operating with Polynomials

Practice 2.1.2: Adding and Subtracting Polynomials

Simplify each expression.

1. $(-x^6 + 10x^3 + 5x + 6) + (12x^3 - 8x + 7)$

2. $(14y^3 + 8y^2 - 8y - 19) + (18y^2 + 5y - 14)$

3. $(20x^4 + x^3 + 18) - (3x^4 + 14x^3 + 11x^2 + 2)$

4. $(11x^5 - 4x^4 + 19x) - (15x^4 + 13x^3 - 6x + 10)$

5. $(-10z^4 + 2z^3 + 14z^2 + 15) + (5z^3 - 17z^2 - 13z + 8)$

6. $(-4x^6 + 3x^4 + 20) - (-17x^6 + 12x^5 - 6x^4)$

7. $(12h^2 - 9h - 15) - (3h^3 + 7h^2 + 8h + 10)$

The perimeter of a rectangle is the sum of its sides. Find the perimeter of a rectangle with each given length and width. All measurements are given in centimeters.

8. length: $x - 5$; width: $x + 10$

9. length: $x^2 + 1$; width: $4x$

10. length: $-8x + 24$; width: $2x + 3$