Identify the correct name of the polynomial based upon its degree and number of terms.

1. $4x^4 - 3x + 1$

2. $8x^2$

3. $x - 6$

Add, subtract, or multiply the following polynomials.

4. $(5x^2 - 4x + 7) + (8x^2 - 3x - 9)$

5. $(3x^2 - 3x - 5) - (2x^2 + x - 6)$

6. $(4x^2 + 3x - 10) - (-4x^2 + 2x + 8)$
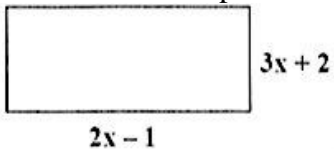
7. $5x^3(4x^4 - 3x + 1)$

8. $(x + 4)(x - 6)$

9 $(x + 9)(x - 9)$

10. $(3x + 1)(2x - 5)$

11. $(2x + 5)^2$

Application Problem:

12. Write the simplified expression for the **perimeter** and **area** of the following rectangle.

$3x + 2$

$2x - 1$

Find Perimeter:

Find Area:

5.1 Answers

1 Quartic Trinomial 2 Quadratic Monomial 3 Linear Binomial 4 $13x^2 - 7x - 2$

5 $x^2 - 4x + 1$ 6 $8x^2 + x - 18$ 7 $20x^7 - 15x^4 + 5x^3$ 8 $x^2 - 2x - 24$ 9 $x^2 - 81$

10 $6x^2 - 13x - 5$ 11 $4x^2 + 20x + 25$ 12 $perimeter\ 10x + 2, area\ 6x^2 + x - 2$