Answer Key · Lesson 8.1: Polynomials and Their Terms

School Launch · Algebra I · Unit 8 · Worksheet A · for the parent

Key

1. degree 2, leading coefficient -4

Write $-4x^2 + 3x + 3$ in standard form; name its degree and leading coefficient.

2. degree 2, leading coefficient -1

Write $-x^2 + 2x - 2$ in standard form; name its degree and leading coefficient.

3. degree 2, leading coefficient 7

Write $7x^2 + 5x + 6$ in standard form; name its degree and leading coefficient.

4. degree 3, leading coefficient 3

1. Highest power x^3: degree 3; its coefficient 3 leads

Write $3x^3 - 6x^2 - 5x + 6$ in standard form; name its degree and leading coefficient.

5. degree 3, leading coefficient 7

1. Highest power x^3: degree 3; its coefficient 7 leads

Write $7x^3 + 2x^2 - 5x - 6$ in standard form; name its degree and leading coefficient.

6. degree 3, leading coefficient -1

1. Highest power x^3: degree 3; its coefficient -1 leads

Write $-x^3 - 4x^2 - 5x + 4$ in standard form; name its degree and leading coefficient.

7. degree 3, leading coefficient 2

1. Highest power x^3: degree 3; its coefficient 2 leads

Write $2x^3 - 4x^2 + 5x + 4$ in standard form; name its degree and leading coefficient.

8. degree 4, leading coefficient 7; sum $7x^4 + 7x^3 + 8x^2 + 3x - 5$

1. Highest power x^4: degree 4; its coefficient 7 leads
2. Add like terms: $(7x^4 + 7x^3 + 7x^2 + 6x - 5) + (x^2 - 3x) = 7x^4 + 7x^3 + 8x^2 + 3x - 5$

Write $7x^4 + 7x^3 + 7x^2 + 6x - 5$ in standard form; name its degree and leading coefficient, and add it to $x^2 - 3x$.

9. degree 4, leading coefficient -5; sum $-5x^4 + 5x^3 + 5x^2 - 2x + 2$

1. Highest power x^4: degree 4; its coefficient -5 leads
2. Add like terms: $(-5x^4 + 5x^3 + 4x^2 + x + 2) + (x^2 - 3x) = -5x^4 + 5x^3 + 5x^2 - 2x + 2$

Write $-5x^4 + 5x^3 + 4x^2 + x + 2$ in standard form; name its degree and leading coefficient, and add it to $x^2 - 3x$.

10. degree 4, leading coefficient -3; sum $-3x^4 - 4x^3 + 4x^2 - 4x + 6$

1. Highest power x^4: degree 4; its coefficient -3 leads
2. Add like terms: $(-3x^4 - 4x^3 + 3x^2 - x + 6) + (x^2 - 3x) = -3x^4 - 4x^3 + 4x^2 - 4x + 6$

Write $-3x^4 - 4x^3 + 3x^2 - x + 6$ in standard form; name its degree and leading coefficient, and add it to $x^2 - 3x$.