Name	Date	e Class
LESSON Practice B		
6-1 Polynomials		
Identify the degree of each me	onomial.	
<b>1.</b> $6x^2$	<b>2.</b> 3p <sup>3</sup> m <sup>4</sup>	<b>3.</b> $2x^8y^3$

Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial.

**4.** 
$$6 + 7x - 4x^3 + x^2$$

**5.**  $x^2 - 3 + 2x^5 + 7x^4 - 12x$ 

Add or subtract. Write your answer in standard form.

**6.** 
$$(2x^2 - 2x + 6) + (11x^3 - x^2 - 2 + 5x)$$
 **7.**  $(x^2 - 8) - (3x^3 + 6x - 4 + 9x^2)$ 

**8.**  $(5x^4 + x^2) + (7 + 9x^2 - 2x^4 + x^3)$ **9.**  $(12x^2 + x) - (6 - 9x^2 + x^7 - 8x)$ 

Graph each polynomial function on a calculator. Describe the graph, and identify the number of real zeros.

**10.** 
$$f(x) = x^3 + 2x^2 - 3$$

**11.**  $f(x) = x^4 - 5x^2 + 1$ 

Solve.

- **12.** The height, *h*, in feet, of a baseball after being struck by a bat can be approximated by  $h(t) = -16t^2 + 100t + 5$ , where *t* is measured in seconds.
  - **a.** Evaluate h(t) for t = 3 and t = 5.
  - **b.** Describe what the values of the function from part a represent.

6-1 Polynomials	6-1 Polynomials
Identify the degree of each monomial. 1. $x^2$ 2. 3 3. $a^2b^2$	Identify the degree of each monomial.
1. x 2. 3 3. a b	<b>1.</b> $6x^2$ <b>2.</b> $3p^3m^4$ <b>3.</b> $2x^8y^3$
2 0 4	2 7 11
<b>4.</b> $7x$ <b>5.</b> $4x^2y$ <b>6.</b> $2x^5$	Rewrite each polynomial in standard form. Then identify the leading
1 3 5	coefficient, degree, and number of terms. Name the polynomial.
	4. $6 + 7x - 4x^3 + x^2$ - $4x^3 + x^2 + 7x + 6$ ; -4; 3; 4; cubic polynomial with 4 terms
Solve.	
7. a. Rewrite the polynomial $2x^2 + x^3 + -7x + 1$ in standard form. $x^3 + 2x^2 - 7x + 1$	5. $x^2 - 3 + 2x^5 + 7x^4 - 12x$
b. What is the leading coefficient?	$2x^5 + 7x^4 + x^2 - 12x - 3; 2; 5; 5;$ quintic polynomial with 5 terms
c. What is the degree? 3	Add or subtract. Write your answer in standard form.
d. How many terms are in this polynomial?	<b>6.</b> $(2x^2 - 2x + 6) + (11x^3 - x^2 - 2 + 5x)$ <b>7.</b> $(x^2 - 8) - (3x^3 + 6x - 4 + 9x^2)$
e. Name the polynomial. Cubic polynomial with 4 terms	$11x^3 + x^2 + 3x + 4 \qquad -3x^3 - 8x^2 - 6x - 4$
8. a. Rewrite the polynomial $5 - 3x + 4x^2$ in standard form. $4x^2 - 3x + 5$	<b>8.</b> $(5x^4 + x^2) + (7 + 9x^2 - 2x^4 + x^3)$ <b>9.</b> $(12x^2 + x) - (6 - 9x^2 + x^7 - 8x)$
b. What is the leading coefficient?	$3x^4 + x^3 + 10x^2 + 7 \qquad -x^7 + 21x^2 + 9x - 6$
c. What is the degree? 2	$-\frac{3x + x + 10x + 7}{2x + 21x + 9x - 0}$
d. How many terms are in this polynomial? 3	Graph each polynomial function on a calculator. Describe the graph, and identify the number of real zeros.
e. Name the polynomial. Quadratic trinomial	10. $f(x) = x^3 + 2x^2 - 3$
Add or subtract the following polynomials. Write your answer in	From left to right, the graph increases, decreases slightly, and then
standard form.	increases again. It crosses the x-axis once, so there is 1 real zero.
<b>9.</b> $(6x + 7) + (3x + 8)$ <b>10.</b> $(5x - 3) - (3x + 9)$	<b>11.</b> $f(x) = x^4 - 5x^2 + 1$
<u>9x + 15</u> $2x - 12$	From left to right, the graph alternately decreases and increases, changing
<b>11.</b> $(2x^2 + 3x + 4) - (x^2 + x + 2)$ <b>12.</b> $(x^2 - 4x + 5) + (-2x^2 + 7x - 10)$	direction 3 times. It crosses the x-axis 4 times, so there are 4 real zeros.
	Solve.
$x^2 + 2x + 2 \qquad -x^2 + 3x - 5$	12. The height, h, in feet, of a baseball after being struck by a bat can be approximated
Solve.	by $h(t) = -16t^2 + 100t + 5$ , where t is measured in seconds. a. Evaluate $h(t)$ for $t = 3$ and $t = 5$ . 161 ft and 105 ft
13. Britt has 4 full boxes plus 12 extra CDs, and Jim has	<ul> <li>a. Evaluate h(t) for t = 3 and t = 5.</li> <li>b. Describe what the values of the function from part a represent.</li> </ul>
3 full boxes and 5 extra CDs. If the number of CDs in each box is represented by <i>c</i> , write an expression that	The height of the baseball 3 s after being hit by the bat and the height of
shows the total number of CDs that Britt and Jim have. $7c + 17$	the baseball 5 s after being hit by the bat
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Copyright © by Holt, Rinehart and Winston. 3 Holt Algebra 2	All rights reserved. 4 HUIL AUGUMA Z
Practice C           C1         Polynomials	Reteach
Polynomials           Rewrite each polynomial in standard form. Then identify the leading	
<b>6-1</b> Polynomials Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial.	<b>G-1</b> Polynomials The degree of a polynomial is the value of the exponent of the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from
<b>6-1 Polynomials</b> Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. <b>1.</b> $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$	<b>G-1 Polynomials</b> The <b>degree</b> of a polynomial is the value of the exponent of the term of the greatest degree. A polynomial is in <b>standard form</b> when the terms are arranged in order with exponents from greatest to least.
<b>6-1</b> Polynomials Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial.	Degree       Polynomial is standard form         Constants have degree 0.       Constants have degree 0.
<b>611</b> PolynomialsRewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial.1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ 9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1; 9; 5; 6 terms; quintic polynomial with 6 termsAdd or subtract. Write your answer in standard form.	Degree       Polynomial is the value of the exponent of the term of the greatest degree.         A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.         Degree       Polynomial in Standard Form         0       8         1       2x + 3         This third degree nolynomial
<b>61 Polynomials</b> Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1$ ; 9; 5; 6 terms; <u>quintic polynomial with 6 terms</u> Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$	<b>Degree</b> Polynomial is the value of the exponent of the term of the greatest degree.         A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.         Degree       Polynomial in Standard Form         0       8         1 $2x + 3$ 2 $-x^2 + 4x - 5$ This third degree polynomial
61 PolynomialsRewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial.1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1; 9; 5; 6 terms;quintic polynomial with 6 termsAdd or subtract. Write your answer in standard form.2. (7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)6x^3 + 8x^2 + 4x - 7$	<b>6-1</b> Polynomials The degree of a polynomial is the value of the exponent of the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least. $\begin{array}{c ccccccccccccccccccccccccccccccccccc$
<b>61</b> Polynomials Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1$ ; 9; 5; 6 terms; <u>quintic polynomial with 6 terms</u> Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$ $6x^3 + 8x^2 + 4x - 7$ 3. $(12 - 11x - 5x^5) - (4x^4 + 8x - 4x^5 + 2x^3 - 1)$	<b>G-1</b> Polynomials The degree of a polynomial is the value of the exponent of the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least. <b>Degree Polynomial in Standard Form</b> 0 8 1 2x+3 2 $-x^2 + 4x - 5$ 3 $4x^3 - x$ <b>Degree Polynomial</b> This third degree polynomial has 2 terms.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	<b>6-1</b> Polynomials The degree of a polynomial is the value of the exponent of the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least. $\begin{array}{r} \hline \textbf{Degree} & \textbf{Polynomial} i \text{ is standard form} \\ \hline \textbf{0} & \textbf{8} \\ \hline \textbf{1} & 2x + 3 \\ \hline \textbf{2} & -x^2 + 4x - 5 \\ \hline \textbf{3} & 4x^3 - x \\ \hline \textbf{4} & 6x^4 + x^3 - 5x^2 + 3x - 1 \\ \hline \textbf{5} & 9x^5 + x^3 - 1 \\ \hline \textbf{1} & x^3 - x \\ \hline \textbf{1} & x^3 - x \\ \hline \textbf{1} & x^5 - x^2 + 4x - 5 \\ \hline \textbf{1} & x^5 - x^2 + 3x - 1 \\ \hline \textbf{1} & x^5 - x^2 + 3x - 1 \\ \hline \textbf{1} & x^5 - x^2 + 3x - 1 \\ \hline \textbf{1} & x^5 - x^3 - 1 \\ \hline \textbf{1} & x^5 - x^5 + x^3 - 1 \\ \hline \textbf{1} & x^5 - x^5 + x^3 - 1 \\ \hline \textbf{1} & x^5 - x^5 + x^5 - x^5 + x^5 \\ \hline \textbf{1} & x^5 - x^5 + x^5 - x^5 + x^5 \\ \hline \textbf{1} & x^5 - x^5 + x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 + x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 + x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 + x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 + x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 + x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 + x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 + x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 + x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 + x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 - x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 - x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 - x^5 - x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 - x^5 - x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 - x^5 - x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 - x^5 - x^5 - x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^5 \\ \hline \textbf{1} & x^5 - x^$
<b>61</b> <i>Polynomials</i> Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1$ ; 9; 5; 6 terms; <u>quintic polynomial with 6 terms</u> Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$ $6x^3 + 8x^2 + 4x - 7$ 3. $(12 - 11x - 5x^5) - (4x^4 + 8x - 4x^5 + 2x^3 - 1)$ $-x^5 - 4x^4 - 2x^3 - 19x + 13$ 4. $(-3x^4 + x^6 - 9x^5 + 2x^2 - 7) - (-2x^5 + x - 4x^2 - x^4 + 12)$	<b>G-1</b> Polynomials The degree of a polynomial is the value of the exponent of the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least. $\begin{array}{r} \hline Degree & Polynomial in Standard Form \\ \hline 0 & 8 \\ \hline 1 & 2x + 3 \\ \hline 2 & -x^2 + 4x - 5 \\ \hline 3 & 4x^3 - x \\ \hline 4 & 6x^4 + x^3 - 5x^2 + 3x - 1 \\ \hline 5 & 9x^5 + x^3 - 1 \\ \hline 1 & 3 \ terms. \end{array}$ To arrange the polynomial $3x^2 + x^4 - 2x + 6x^5 - 7$ in standard form, order the terms from greatest to least exponent.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	<b>6-1</b> Polynomials The degree of a polynomial is the value of the exponent of the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least. $\begin{array}{r} \hline \textbf{Degree Polynomial in Standard Form} & Constants have degree 0.\\ \hline 1 & 2x + 3 & \\ \hline 2 & -x^2 + 4x - 5 & \\ \hline 3 & 4x^3 - x & \\ \hline 4 & 6x^4 + x^3 - 5x^2 + 3x - 1 & \\ \hline 5 & 9x^5 + x^3 - 1 & \\ \hline 1 & 1 & 1 & \\ \hline 1 & 2x + 3 $
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	<b>6-1</b> Polynomials The degree of a polynomial is the value of the exponent of the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least. $\begin{array}{r} \hline \hline 0 & 8 \\ \hline 0 & 1 \\ 2 & -x^2 + 4x - 5 \\ \hline 3 & 4x^2 - x \\ \hline 4 & 6x^4 + x^3 - 5x^2 + 3x - 1 \\ \hline 5 & 9x^5 + x^3 - 1 \\ \hline \end{array}$ To arrange the polynomial $3x^2 + x^4 - 2x + 6x^5 - 7$ in standard form, order the terms from greatest to least exponent. $\begin{array}{r} \hline 6 & \text{is the leading} \\ \hline 0 & 8 $
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	<b>6-1</b> Polynomials The degree of a polynomial is the value of the exponent of the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least. $\begin{array}{r} \hline \textbf{Degree Polynomial in Standard Form} & Constants have degree 0.\\ \hline 1 & 2x + 3 & \\ \hline 2 & -x^2 + 4x - 5 & \\ \hline 3 & 4x^3 - x & \\ \hline 4 & 6x^4 + x^3 - 5x^2 + 3x - 1 & \\ \hline 5 & 9x^5 + x^3 - 1 & \\ \hline 1 & 1 & 1 & \\ \hline 1 & 2x + 3 $
<b>61</b> <i>Polynomials</i> Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1$ ; 9; 5; 6 terms; <u>quintic polynomial with 6 terms</u> Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$ $6x^3 + 8x^2 + 4x - 7$ 3. $(12 - 11x - 5x^5) - (4x^4 + 8x - 4x^5 + 2x^3 - 1)$ $-x^5 - 4x^4 - 2x^3 - 19x + 13$ 4. $(-3x^4 + x^6 - 9x^5 + 2x^2 - 7) - (-2x^5 + x - 4x^2 - x^4 + 12)$ $x^6 - 7x^5 - 2x^4 + 6x^2 - x - 19$ Solve. 5. What polynomial could you add to $3x^4 - 9x^3 + 5x^2 - x + 7$ to get a sum of	<b>6-1</b> Polynomials The degree of a polynomial is the value of the exponent of the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least. $\begin{array}{r} \hline 0 & 8 \\ \hline 0 & 1 \\ \hline 2 & -x^2 + 4x - 5 \\ \hline 3 & 4x^3 - x \\ \hline 4 & 6x^4 + x^3 - 5x^2 + 3x - 1 \\ \hline 5 & 9x^5 + x^3 - 1 \\ \hline \end{array}$ This fifth degree polynomial has 3 terms. To arrange the polynomial $3x^2 + x^4 - 2x + 6x^5 - 7$ in standard form, order the terms from greatest to least exponent. 6 is the leading coefficient of this polynomial. $\begin{array}{r} 6x^5 + x^4 + 3x^2 - 2x - 7 \\ \hline 0 & 0 \\ \hline \end{array}$
<b>61 Polynomials</b> Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1; 9; 5; 6 terms;$ quintic polynomial with 6 terms Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$ $\frac{6x^3 + 8x^2 + 4x - 7}{(12 - 11x - 5x^5) - (4x^4 + 8x - 4x^2 + 2x^3 - 1)}$ $\frac{-x^5 - 4x^4 - 2x^3 - 19x + 13}{(-3x^4 + x^6 - 9x^5 + 2x^2 - 7) - (-2x^5 + x - 4x^2 - x^4 + 12)}$ $\frac{x^6 - 7x^5 - 2x^4 + 6x^2 - x - 19}{x^6 - 7x^5 - 2x^4 + 6x^2 - x - 19}$ Solve. 5. What polynomial could you add to $3x^4 - 9x^3 + 5x^2 - x + 7$ to get a sum of $3 + 4x^4 + 3x - x^3 + 3x^2?$ $\frac{x^4 + 8x^3 - 2x^2 + 4x - 4}{6}$ 6. What polynomial could you subtract from $5x^3 - 12x - x^2 + 9 - 12x^5 - 6x^4$ to give	<b>6-1</b> PolynomialsThe degree of a polynomial is the value of the exponent of the term of the greatest degree.A polynomial is in standard form when the terms are arranged in order with exponents fromgreatest to least.Degree Polynomial in Standard FormConstants have degree 0.081 $2x + 3$ 2 $-x^2 + 4x - 5$ 3 $4x^3 - x$ 4 $6x^4 + x^3 - 5x^2 + 3x - 1$ 15 $9x^5 + x^3 - 1$ This fifth degree polynomial has 3 terms.To arrange the polynomial $3x^2 + x^4 - 2x + 6x^5 - 7$ in standard form, order the terms fromgreatest to least exponent.6x <sup>5</sup> + x <sup>4</sup> + $3x^2 - 2x - 7$ Rewrite each polynomial in standard form. Then identify the leading coefficient of this polynomial.
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	<b>6-1</b> PolynomialsThe degree of a polynomial is the value of the exponent of the term of the greatest degree.A polynomial is in standard form when the terms are arranged in order with exponents fromgreatest to least.Degree Polynomial in Standard FormConstants have degree 0. $0$ $8$ $1$ $2x + 3$ $2x + 3$ This third degree polynomial $3$ $4x^3 - x$ $4$ $6x^4 + x^3 - 5x^2 + 3x - 1$ $3$ $4x^3 - x$ $4$ $6x^4 + x^3 - 5x^2 + 3x - 1$ This third degree polynomialTo arrange the polynomial $3x^2 + x^4 - 2x + 6x^5 - 7$ in standard form, order the terms fromgreatest to least exponent.Gis the leading coefficient of this polynomial.Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms of each polynomial.1. $2x + x^3 - x^2 - 5$ 2. $5x^2 + 3x^4 - x$
<b>61</b> <i>Polynomials</i> Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1$ ; 9; 5; 6 terms; <u>quintic polynomial with 6 terms</u> Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$ $6x^3 + 8x^2 + 4x - 7$ 3. $(12 - 11x - 5x^5) - (4x^4 + 8x - 4x^5 + 2x^3 - 1)$ $-x^5 - 4x^4 - 2x^3 - 19x + 13$ 4. $(-3x^4 + x^6 - 9x^5 + 2x^2 - 7) - (-2x^5 + x - 4x^2 - x^4 + 12)$ $x^6 - 7x^5 - 2x^4 + 6x^2 - x - 19$ Solve. 5. What polynomial could you add to $3x^4 - 9x^3 + 5x^2 - x + 7$ to get a sum of $3 + 4x^4 + 3x - x^3 + 3x^2$ ? $x^4 + 8x^3 - 2x^2 + 4x - 4$ 6. What polynomial could you subtract from $5x^3 - 12x - x^2 + 9 - 12x^5 - 6x^4$ to give a difference of $19 + 8x^3 - 18x - 19x^5 - 2x^2 - 8x^4$ ?	<b>6-1</b> PolynomialsThe degree of a polynomial is the value of the exponent of the term of the greatest degree.A polynomial is in standard form when the terms are arranged in order with exponents fromgreatest to least.Degree Polynomial in Standard FormConstants have degree 0.081 $2x + 3$ 2 $-x^2 + 4x - 5$ 3 $4x^3 - x$ 4 $6x^4 + x^3 - 5x^2 + 3x - 1$ 15 $9x^5 + x^3 - 1$ This fifth degree polynomial has 3 terms.To arrange the polynomial $3x^2 + x^4 - 2x + 6x^5 - 7$ in standard form, order the terms fromgreatest to least exponent.6x <sup>5</sup> + x <sup>4</sup> + $3x^2 - 2x - 7$ Rewrite each polynomial in standard form. Then identify the leading coefficient of this polynomial.
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	<b>6-1</b> Polynomials The degree of a polynomial is the value of the exponent of the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least. $\begin{array}{r} \hline \hline 0 & 8 \\ \hline 0 & 1 \\ \hline 2 & -x^2 + 4x - 5 \\ \hline 1 & 2x + 3 \\ \hline 2 & -x^2 + 4x - 5 \\ \hline 3 & 4x^3 - x \\ \hline 4 & 6x^4 + x^3 - 5x^2 + 3x - 1 \\ \hline 1 & 5 \\ \hline 9x^5 + x^3 - 1 \\ \hline 1 & 3 \\ \hline 1 & 2x + 3 \\ \hline 2 & -x^2 + 4x - 5 \\ \hline 1 & 1 \\ \hline 1 & 2x + 3 \\ \hline 2 & -x^2 + 4x - 5 \\ \hline 1 & 1 \\ \hline 1 & 2x + 3 \\ \hline 1 & 2$
<b>61</b> <i>Polynomials</i> Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1$ ; 9; 5; 6 terms; quintic polynomial with 6 terms Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$ $\frac{6x^3 + 8x^2 + 4x - 7}{(12 - 11x - 5x^5) - (4x^4 + 6x - 4x^5 + 2x^3 - 1)}$ $\frac{-x^5 - 4x^4 - 2x^3 - 19x + 13}{(-3x^4 + x^6 - 9x^5 + 2x^2 - 7) - (-2x^5 + x - 4x^2 - x^4 + 12)}$ $\frac{x^6 - 7x^5 - 2x^4 + 6x^2 - x - 19}{x^6 - 7x^5 - 2x^4 + 6x^2 - x - 19}$ Solve. 5. What polynomial could you add to $3x^4 - 9x^3 + 5x^2 - x + 7$ to get a sum of $3 + 4x^4 + 3x - x^3 + 3x^2?$ $\frac{x^4 + 8x^3 - 2x^2 + 4x - 4}{(x^5 - 2x^4 - 5x^2 - 8x^4)^2}$ 6. What polynomial could you subtract from $5x^3 - 12x - x^2 + 9 - 12x^5 - 6x^4$ to give a difference of 19 + $8x^3 - 18x - 19x^5 - 2x^4 - 8x^4$ ?	<b>6-1</b> PolynomialsThe degree of a polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.Degree Polynomial in Standard form when the terms are arranged in order with exponents from greatest to least.Degree Polynomial in Standard form 0Notation to the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.Degree Polynomial in Standard Form 0Constants have degree 0.12x + 3 2 + 4x - 534x <sup>3</sup> - x 4 + 6x <sup>4</sup> + 3 <sup>2</sup> - 5x + 3x - 146x <sup>4</sup> + x <sup>3</sup> - 5x <sup>2</sup> + 3x - 1This third degree polynomial has 3 terms.To arrange the polynomial $3x^2 + x^4 - 2x + 6x^5 - 7$ in standard form, order the terms from greatest to least exponent.6 is the leading coefficient of this polynomial.Coefficient of this polynomial.1. $2x + x^3 - x^2 - 5$ 2. $5x^2 + 3x^4 - x$ Standard form: $x^3 - x^2 + 2x - 5$ Standard form: $x^3 - x^2 + 2x - 5$ Standard form: $3x^4 + \frac{5x^2 - x}{3}$ Leading coefficient:
<b>61</b> <i>Polynomials</i> Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1$ ; 9; 5; 6 terms; <u>quintic polynomial with 6 terms</u> Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$ $6x^3 + 8x^2 + 4x - 7$ 3. $(12 - 11x - 5x^5) - (4x^4 + 8x - 4x^5 + 2x^3 - 1)$ $-x^5 - 4x^4 - 2x^3 - 19x + 13$ 4. $(-3x^4 + x^6 - 9x^5 + 2x^2 - 7) - (-2x^5 + x - 4x^2 - x^4 + 12)$ $x^6 - 7x^5 - 2x^4 + 6x^2 - x - 19$ Solve. 5. What polynomial could you add to $3x^4 - 9x^3 + 5x^2 - x + 7$ to get a sum of $3 + 4x^4 + 3x - x^3 + 3x^2$ ? $x^4 + 8x^3 - 2x^2 + 4x - 4$ 6. What polynomial could you subtract from $5x^3 - 12x - x^2 + 9 - 12x^5 - 6x^4$ to give a difference of 19 + 8x^3 - 18x - 19x^5 - 2x^2 - 8x^4? $7x^5 + 2x^4 - 3x^3 + x^2 + 6x - 10$ Graph each polynomial function on a calculator. Describe the graph, and identify the number of real zeros.	<b>6-1</b> Polynomials The degree of a polynomial is the value of the exponent of the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least. $\begin{array}{r} \hline \hline 0 & 8 \\ \hline 0 & 1 \\ \hline 2 & -x^2 + 4x - 5 \\ \hline 1 & 2x + 3 \\ \hline 2 & -x^2 + 4x - 5 \\ \hline 3 & 4x^3 - x \\ \hline 4 & 6x^4 + x^3 - 5x^2 + 3x - 1 \\ \hline 1 & 5 \\ \hline 9x^5 + x^3 - 1 \\ \hline 1 & 9x^5 + x^4 - 2x + 6x^5 - 7 \text{ in standard form, order the terms from greatest to least exponent.} \\ \hline \hline 0 & 8 \\ \hline 1 & 2x + 3 \\ \hline 0 & 8 \\ \hline 1 & 2x + 3 \\ \hline 0 & 8 \\ \hline 1 & 2x + 3 \\ \hline 0 & 8 \\ \hline 1 & 2x + 3 \\ \hline 0 & 8 \\ \hline 1 & 2x + 3 \\ \hline 0 & 8 \\ \hline 0 & 8 \\ \hline 1 & 2x + 3 \\ \hline 0 & 8 \\ \hline 1 & 8 \\ \hline 0 & 8 \\ \hline 1 & 8 \\ \hline 0 & 8 $
<b>61</b> <i>Polynomials</i> Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1$ ; 9; 5; 6 terms; quintic polynomial with 6 terms Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$ $6x^3 + 8x^2 + 4x - 7$ 3. $(12 - 11x - 5x^5) - (4x^4 + 8x - 4x^5 + 2x^3 - 1)$ $-x^5 - 4x^4 - 2x^3 - 19x + 13$ 4. $(-3x^4 + x^6 - 9x^5 + 2x^2 - 7) - (-2x^5 + x - 4x^2 - x^4 + 12)$ $x^6 - 7x^5 - 2x^4 + 6x^2 - x - 19$ Solve. 5. What polynomial could you add to $3x^4 - 9x^3 + 5x^2 - x + 7$ to get a sum of $3 + 4x^4 + 3x - x^3 + 3x^2$ ? $x^4 + 8x^3 - 2x^2 + 4x - 4$ 6. What polynomial could you subtract from $5x^3 - 12x - x^2 + 9 - 12x^5 - 6x^4$ to give a difference of $9 + 8x^3 - 18x - 19x^5 - 2x^2 - 8x^4$ ? $7x^5 + 2x^4 - 3x^3 + x^2 + 6x - 10$ Graph each polynomial function on a calculator. Describe the graph, and identify the number of real zeros. 7. $f(x) = 2x^3 - 6x + 1$ From left to right, the graph increases, decreases substantially, and then increases again. It crosses the x-axis 3 times, so there are 3 real zeros.	<b>6-1</b> PolynomialsThe degree of a polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.Degree Polynomial in Standard form when the terms are arranged in order with exponents from greatest to least.Degree Polynomial in Standard form 0Notation to the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.Degree Polynomial in Standard Form 0Constants have degree 0.12x + 3 2 + 4x - 534x <sup>3</sup> - x 4 + 6x <sup>4</sup> + 3 <sup>2</sup> - 5x + 3x - 146x <sup>4</sup> + x <sup>3</sup> - 5x <sup>2</sup> + 3x - 1This third degree polynomial has 3 terms.To arrange the polynomial $3x^2 + x^4 - 2x + 6x^5 - 7$ in standard form, order the terms from greatest to least exponent.6 is the leading coefficient of this polynomial.Coefficient of this polynomial.1. $2x + x^3 - x^2 - 5$ 2. $5x^2 + 3x^4 - x$ Standard form: $x^3 - x^2 + 2x - 5$ Standard form: $x^3 - x^2 + 2x - 5$ Standard form: $3x^4 + \frac{5x^2 - x}{3}$ Leading coefficient:
<b>61</b> <i>Polynomials</i> Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1$ ; 9; 5; 6 terms; <u>quinitic polynomial with 6 terms</u> Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$ $6x^3 + 8x^2 + 4x - 7$ 3. $(12 - 11x - 5x^5) - (4x^4 + 8x - 4x^5 + 2x^3 - 1)$ $-x^5 - 4x^4 - 2x^3 - 19x + 13$ 4. $(-3x^4 + x^6 - 9x^5 + 2x^2 - 7) - (-2x^5 + x - 4x^2 - x^4 + 12)$ $x^6 - 7x^5 - 2x^4 + 6x^2 - x - 19$ Solve. 5. What polynomial could you add to $3x^4 - 9x^3 + 5x^2 - x + 7$ to get a sum of $3 + 4x^4 + 3x - x^3 + 3x^2$ ? $x^4 + 8x^3 - 2x^2 + 4x - 4$ 6. What polynomial could you subtract from $5x^3 - 12x - x^2 + 9 - 12x^5 - 6x^4$ to give a difference of $19 + 8x^3 - 18x - 19x^5 - 2x^2 - 8x^4$ ? $7x^5 + 2x^4 - 3x^3 + x^2 + 6x - 10$ Graph each polynomial function on a calculator. Describe the graph, and identify the number of real zeros. 7. $f(x) = 2x^3 - 6x + 1$ From left to right, the graph increases, decreases substantially, and then increases again. It crosses the x-axis 3 times, so there are 3 real zeros. 8. $f(x) = 5x^4 + 4x^3 - 5x - 3$	<b>6-1</b> Polynomials         The degree of a polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.         Degree       Polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.         Degree       Polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.         Degree       Polynomial in Standard Form       Constants have degree 0.         1 $2x + 3$ This third degree polynomial has 2 terms.         3 $4x^3 - x$ This fifth degree polynomial has 3 terms.         4 $6x^4 + x^3 - 5x^2 + 3x - 1$ This fifth degree polynomial has 3 terms.         To arrange the polynomial $3x^2 + x^4 - 2x + 6x^5 - 7$ in standard form, order the terms from greatest to least exponent. $6x^5 + x^4 + 3x^2 - 2x - 7$ 6 is the leading coefficient of this polynomial. $6x^5 + x^4 + 3x^2 - 2x - 7$ Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms of each polynomial.         1. $2x + x^3 - x^2 - 5$ $2.5x^2 + 3x^4 - x$ Standard form: $x^3 - x^2 + 2x - 5$ Standard form: $3x^4 + \underline{5x^2 - x}$ Leading coefficient: 1       Leading coefficient: <u>3</u> Degree: <u>3</u> Degree: <u>4</u>
<b>61</b> <i>Polynomials</i> Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1$ ; 9; 5; 6 terms; quintic polynomial with 6 terms Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$ $6x^3 + 8x^2 + 4x - 7$ 3. $(12 - 11x - 5x^5) - (4x^4 + 8x - 4x^5 + 2x^3 - 1)$ $-x^5 - 4x^4 - 2x^3 - 19x + 13$ 4. $(-3x^4 + x^6 - 9x^5 + 2x^2 - 7) - (-2x^5 + x - 4x^2 - x^4 + 12)$ $x^6 - 7x^5 - 2x^4 + 6x^2 - x - 19$ Solve. 5. What polynomial could you add to $3x^4 - 9x^3 + 5x^2 - x + 7$ to get a sum of $3 + 4x^4 + 3x - x^3 + 3x^2?$ $x^4 + 8x^3 - 2x^2 + 4x - 4$ 6. What polynomial could you subtract from $5x^3 - 12x - x^2 + 9 - 12x^5 - 6x^4$ to give a difference of 19 + 8x^3 - 18x - 19x^5 - 2x^2 - 8x^4? $7x^5 + 2x^4 - 3x^3 + x^2 + 6x - 10$ Graph each polynomial function on a calculator. Describe the graph, and identify the number of real zeros. 7. $f(x) = 2x^3 - 6x + 1$ From left to right, the graph increases, decreases substantially, and then increases again. It crosses the x-axis 3 times, so there are 3 real zeros. 8. $f(x) = 5x^4 + 4x^3 - 5x - 3$ From left to right, the graph decreases and then increases. It crosses the	<b>6-1</b> Polynomials         The degree of a polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.         Degree       Polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.         Degree       Polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.         Degree       Polynomial is standard form when the terms are arranged in order with exponents from greatest to least.         Degree       Polynomial is standard form. Constants have degree 0.         1 $2x + 3$ 2 $-x^2 + 4x - 5$ 3 $4x^3 - x$ 4 $6x^4 + x^3 - 5x^2 + 3x - 1$ This third degree polynomial is 2 terms.         5 $9x^5 + x^3 - 1$ This fifth degree polynomial has 3 terms.         To arrange the polynomial $3x^2 + x^4 - 2x + 6x^5 - 7$ in standard form, order the terms from greatest to least exponent.         6 is the leading coefficient of this polynomial.         1. $2x + x^3 - x^2 - 5$ $2.5x^2 + 3x^4 - x$ Standard form: $x^3 - x^2 + 2x - 5$ Standard form: $3x^4 + \frac{5x^2 - x}{2}$ Leading coefficient: 1       Leading coefficient: $3$ Degree: $3$ Degree: $4$ Number of terms: $4$ Number of terms: $3$ 3.
<b>61</b> Polynomials Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1$ ; 9; 5; 6 terms; quintic polynomial with 6 terms Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$ $6x^3 + 8x^2 + 4x - 7$ 3. $(12 - 11x - 5x^5) - (4x^4 + 8x - 4x^5 + 2x^3 - 1)$ $-x^5 - 4x^4 - 2x^3 - 19x + 13$ 4. $(-3x^4 + x^6 - 9x^5 + 2x^2 - 7) - (-2x^5 + x - 4x^2 - x^4 + 12)$ $x^6 - 7x^5 - 2x^4 + 6x^2 - x - 19$ Solve. 5. What polynomial could you add to $3x^4 - 9x^3 + 5x^2 - x + 7$ to get a sum of $3 + 4x^4 + 3x - x^3 + 3x^2?$ $x^4 + 8x^3 - 2x^2 + 4x - 4$ 6. What polynomial could you subtract from $5x^3 - 12x - x^2 + 9 - 12x^5 - 6x^4$ to give a difference of 19 + 8x^3 - 18x - 19x^5 - 2x^2 - 8x^4? $7x^5 + 2x^4 - 3x^3 + x^2 + 6x - 10$ Graph each polynomial function on a calculator. Describe the graph, and identify the number of real zeros. 7. $f(x) = 2x^3 - 6x + 1$ From left to right, the graph increases, decreases substantially, and then increases again. It crosses the x-axis 3 times, so there are 3 real zeros. 8. $f(x) = 5x^4 + 4x^3 - 5x - 3$ From left to right, the graph decreases and then increases. It crosses the x-axis twice, so there are 2 real zeros.	<b>6-1</b> Polynomials         The degree of a polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.
<b>61</b> Polynomials Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1$ ; 9; 5; 6 terms; quintic polynomial with 6 terms Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$ $6x^3 + 8x^2 + 4x - 7$ 3. $(12 - 11x - 5x^5) - (4x^4 + 8x - 4x^5 + 2x^3 - 1)$ $-x^5 - 4x^4 - 2x^3 - 19x + 13$ 4. $(-3x^4 + x^6 - 9x^5 + 2x^2 - 7) - (-2x^5 + x - 4x^2 - x^4 + 12)$ $x^6 - 7x^5 - 2x^4 + 6x^2 - x - 19$ Solve. 5. What polynomial could you add to $3x^4 - 9x^3 + 5x^2 - x + 7$ to get a sum of $3 + 4x^4 + 3x - x^3 + 3x^2?$ $x^4 + 8x^3 - 2x^2 + 4x - 4$ 6. What polynomial could you subtract form $5x^3 - 12x - x^2 + 9 - 12x^5 - 6x^4$ to give a difference of 19 + 8x^3 - 18x - 19x^5 - 2x^2 - 8x^4? $7x^5 + 2x^4 - 3x^3 + x^2 + 6x - 10$ Graph each polynomial function on a calculator. Describe the graph, and identify the number of real zeros. 7. $f(x) = 2x^3 - 6x + 1$ From left to right, the graph increases, decreases substantially, and then increases again. It crosses the x-axis 3 times, so there are 3 real zeros. 8. $f(x) = 5x^4 + 4x^3 - 5x - 3$ From left to right, the graph decreases and then increases. It crosses the x-axis twice, so there are 2 real zeros.	<b>6-1</b> PolynomialsThe degree of a polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.Degree Polynomial in Standard form when the terms are arranged in order with exponents from greatest to least.Degree Polynomial in Standard Form 0Constants have degree 0.12x + 3 1This third degree polynomial has 2 terms.2 $-x^2 + 4x - 5$ 4This third degree polynomial has 2 terms.3 $4x^2 - x$ 4 $5x^2 + 3x - 1$ 9x^5 + $x^3 - 1$ To arrange the polynomial $3x^2 + x^4 - 2x + 6x^5 - 7$ in standard form, order the terms from greatest to least exponent.6 is the leading coefficient of this polynomial. $6x^5 + x^4 + 3x^2 - 2x - 7$ Rewrite each polynomial in standard form. Then identify the leading coefficient degree, and number of terms of each polynomial.1. $2x + x^3 - x^2 - 5$ 2. $5x^2 + 3x^4 - x$ Standard form: $x^3 - x^2 + 2x - 5$ Standard form: $x^3 - x^2 + 2x - 5$ Leading coefficient: 1Leading coefficient: 1Degree: 4Number of terms: $4$ Number of terms: $3$ Standard form: $[7x^5 + 6x^3]$ Standard form: $[7x^5 + 6x^3]$
<b>631</b> Polynomials Rewrite each polynomial in standard form. Then identify the leading coefficient, degree, and number of terms. Name the polynomial. 1. $5x^3 + 2x - 1 - 10x^2 + 9x^5 - 3x^4$ $9x^5 - 3x^4 + 5x^3 - 10x^2 + 2x - 1$ ; 9; 5; 6 terms; quintic polynomial with 6 terms Add or subtract. Write your answer in standard form. 2. $(7x^3 + 2x - 1) + (8x^2 - 6 + 2x - x^3)$ $6x^3 + 8x^2 + 4x - 7$ 3. $(12 - 11x - 5x^5) - (4x^4 + 8x - 4x^5 + 2x^3 - 1)$ $-x^5 - 4x^4 - 2x^3 - 19x + 13$ 4. $(-3x^4 + x^6 - 9x^5 + 2x^2 - 7) - (-2x^5 + x - 4x^2 - x^4 + 12)$ $x^6 - 7x^5 - 2x^4 + 6x^2 - x - 19$ Solve. 5. What polynomial could you add to $3x^4 - 9x^3 + 5x^2 - x + 7$ to get a sum of $3 + 4x^4 + 3x - x^3 + 3x^2$ ? $x^4 + 8x^3 - 2x^2 + 4x - 4$ 6. What polynomial could you subtract from $5x^3 - 12x - x^2 + 9 - 12x^5 - 6x^4$ to give a difference of 19 + $8x^3 - 18x - 19x^5 - 2x^2 - 8x^4$ ? $7x^5 + 2x^4 - 3x^3 + x^2 + 6x - 10$ Graph each polynomial function on a calculator. Describe the graph, and identify the number of real zeros. 7. $f(x) = 2x^3 - 6x + 1$ From left to right, the graph increases, decreases substantially, and then increases again. It crosses the x-axis 3 times, so there are 3 real zeros. 8. $f(x) = 5x^4 + 4x^3 - 5x - 3$ From left to right, the graph decreases and then increases. It crosses the x-axis twice, so there are 2 real zeros. Solve. 9. The profit, <i>P</i> , earned by a small business each year can be modeled to fit the polynomial function $P(y) = 10y^3 - 50y^2 + 20y + 100,000$ , where <i>y</i> is the	<b>6-1</b> Polynomial is       Polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.         Image: the least in the least is in standard form when the terms are arranged in order with exponents from greatest to least.       Image: the least form the least exponent of the term of the greatest degree. A polynomial is in standard form when the terms are arranged in order with exponents from greatest to least.         Image: the least is in the least exponent.       Image: the least exponent.       Constants have degree 0.         Image: the least exponent.       Image: the least exponent.       Image: the least exponent.         Image: the least exponent.       Image: the least exponent.       Image: the least exponent.         Image: the least exponent.       Image: the least exponent.       Image: the least exponent.         Image: the least exponent.       Image: the least exponent.       Image: the least exponent.         Image: the least exponent.       Image: the least exponent.       Image: the least exponent.         Image: the least exponent.       Image: the least exponent.       Image: the least exponent.         Image: the least exponent.       Image: the least exponent.       Image: the least exponent.         Image: the least exponent.       Image: the least exponent.       Image: the least exponent.         Image: the least exponent.       Image: the least exponent.       Image: the least exponent.         Image: the le
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