Secondary III 2-1 HW

Name: Selected Answers

Operations with Polynomials

S

1. Write the polynomial $-23x^7 + x^9 - 6x^3 + 10 + 2x^2$ in standard form, and then identify the degree and leading coefficient.

Add the polynomials.

2. $(82x^8 + 21x^2 - 6) + (18x + 7x^8 - 42x^2 + 3)$

$89x^8 - 21x^2 + 18x - 3$

3. $(15x - 121x^{12} + x^9 - x^7 + 3x^2) + (x^7 - 68x^2 - x^9)$

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

$-10x^3$

Subtract the polynomials.

8. $(-2x + 23x^5 + 11) - (5 - 9x^3 + x)$

11. $(9x - 12x^3) + (5x^3 - 7x + 2)$

$-17x^3 + 2x + 2$

13. $(10x^2 - x + 4) - (5x + 7) + (6x - 11)$

Secondary III 2-1 HW Name: _____

Perform the following polynomial multiplications.

5. $(2x+5y)(3x^2-4xy+2y^2)$

$6x^3 - 8x^2y + 4xy^2$
$+15x^2y - 20xy^2 + 10y^3$

$= 6x^3+7x^2y-16xy^2+10y^3$

6. $(x^3+x^2+1)(x^2-x-5)$

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

$x^3 - 5x^2$
$+4x^2 - 20x$
$+7x - 35$

$x^3-x^2-13x-5$

8. $(3x+y)(y^2+4x+3)$