1.4 Add and Subtract Polynomials

NOTES

ALGEBRA

Write your questions here!

MONOMIAL =

Degree of a monomial –

POLYNOMIAL =

Degree of a polynomial –

Standard Form =

Rewrite in standard form and answer the following.

Standard Form = _____

Degree = _____

# of Terms = _____

$8y^3 + 10 - 4y + 3y^5$

Standard Form = _____

Degree = _____

# of Terms = _____

Polynomial Names

Monomials	Binomials	Trinomials

Add Polynomials

$(3w^3 - 3w^2 + 7) + (w^3 + 5w^2 + 2w - 4)$

Subtract Polynomials

$(3a^2 - 2a + 7) - (5a^2 + 2a - 4)$

Simplify Polynomials

	$(2b^2 - 5b - 7) + (b^2 - b - 4)$
$3(2c^2 + 5c) + (4c^3 + 5c^2 - 10)$	$(7n^4 - 3n^2 + 2) - (n^4 - 2n^2 - 5)$

SUMMARY:

Now, summarize your notes here!

1.4 Add and Subtract Polynomials

PRACTICE

Rewrite each polynomial in standard form and then state the degree of the polynomial.

1. $5x^2 - 4x^3 + 5$ Degree = _____	2. $10x^6 - 13x^7$ Degree = _____	3. $6 - 4g^2 + 7g + 5g^3$ Degree = _____
4. $8 - x$ Degree = _____	5. $4(1 + 3x + 5x^2)$ Degree = _____	6. $16 + x^2$ Degree = _____

Find each sum or difference. Write your solution in standard form.

7. $(5a^2 - 3) + (8a^2 - 1)$

8. $(7k^2 + 2k - 6) - (3k^2 - 11k - 8)$

9. $(4m^2 - m + 2) + (-3m^2 + 10m + 7)$

10. $(6c^2 + 3c + 9) - (3c - 5)$

11. $2(n^2 + 2n) - (2n^3 - n^2 + n + 12)$

12. $(9b^3 - 13b^2 + b) + (13b^2 - 5b + 14)$

13. $3(x^2 + 2) - 4(x^2 + 5)$

14. $(d^2 + 3d) - (2d^3 - d^2) + (5d^2 - 4d + 3)$

WRAP UP

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

2. What is the degree of $6x^3 - 5x + 2x^4 + 7$?

3. The expression $3(2m + 5) - (8 - 4m)$ is equivalent to which of the following expressions?

   A) $2m + 7$

   B) $10m - 3$

   C) $2m - 3$

   D) $10m - 7$

   E) none of the above

4. Mr. Bean has a 5th degree polynomial using only the variable *x*. Mr. Kelly has a different 5th degree polynomial using only the variable *x*. Which of the following must be true if Mr. Bean and Mr. Kelly add their polynomials?

   A) the sum will always be a 10th degree polynomial

   B) the sum will be a polynomial whose degree is 10 or less.

   C) the sum will always be a 5th degree polynomial

   D) the sum will be a polynomial whose degree is 5 or less.

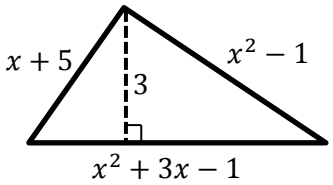
   E) none of the above

SMP #2

EXIT TICKET – Geometry

Write a simplified polynomial to represent the perimeter and area of the triangle below.

Perimeter: ___ Area:



Use your polynomial to find the perimeter and area when $x = 4$.