

Adding & Subtracting Polynomials (Section 2-1)

* Monomial: one term in a polynomial.

Degree: sum of the exponents of the monomial variables.

ex: $27y^4z$
degree: 5

ex: 11
degree: 0

* To add/subtract monomials, they must be like terms.

ex: $8w^2x + w^2x$
 $= 9w^2x$

ex: $5bc^4 - 13bc^4$
 $= -8bc^4$

* Go over table on pg. 49

* Standard form: writing monomials in descending order.

ex: $6x^2 - 13x^2 - 4x + 4$
 $-7x^2 - 4x + 4$ ← standard form
trinomial, degree: 2

ex: carrots & celery: $-12x^3 + 106x^2 - 241x + 4477$

broccoli: $14x^2 - 14x + 1545$

all veggies: $-12x^3 + 120x^2 - 255x + 6022$

ex: $(5x^2 + 3) + (15x^2 + 2)$
 $= 20x^2 + 5$

ex: $(-4m^3 - m + 9) - (4m^2 + m - 12)$
 $= -4m^3 - m + 9 - 4m^2 - m + 12$
 $= -4m^3 - 4m^2 - 2m + 21$

* To sub, distribute the (-)!

ex: $2c^2 + 7c - 1$
 $+ (c^2 + 10c + 4)$
 $= c^2 + 17c + 3$

ex: $(-6w^4 + w^2) + (2w^3 + 4w^2 + w)$
 $= -6w^4 + 2w^3 - 3w^2 + w$

Additional Vocabulary Support

Adding and Subtracting Polynomials : Section 2-1

Concept List

| | | |
|----------|---------------|-----------|
| binomial | constant | cubic |
| degree | fourth degree | linear |
| monomial | quadratic | trinomial |

Choose the concept or concepts from the list above that best represent the item in each box.

| | | |
|---|--|---|
| <p>1. $2x^3 + 5$</p> <p>degree: 3 → cubic # of terms: 2 → binomial</p> <p>cubic binomial</p> | <p>2. $5x + 4x^2$</p> <p>degree: 2 → quadratic # of terms: 2 → binomial</p> <p>quadratic binomial</p> | <p>3. 8</p> <p>degree: 0 → constant # of terms: 1 → monomial</p> <p>constant monomial</p> |
| <p>4. 9</p> <p>constant monomial</p> | <p>5. $3x^2 + 6x + 4$</p> <p>quadratic trinomial</p> | <p>6. $3x^2 + 6x$</p> <p>quadratic binomial</p> |
| <p>7. $4x^4 + 6x^3 + 2x^2$</p> <p>4th degree trinomial or quartic trinomial</p> | <p>8. $7x^2 + x$</p> <p>quadratic binomial</p> | <p>9. $5x^4$</p> <p>4th degree monomial or quartic monomial</p> |