مدرســـــة أكاديميـــــة آسيـــا الشـــــاملـــــة
Asia Academic Integrated School, Inc.
#1 Ferrer Compound, Brgy. Pinagbuhatan, Pasig City
E-mail address: AAISPasig@gmail.com/human_school@yahoo.com
Contact Numbers: 0927-5388354 / 0921-6610287

DepED DEPARTMENT OF EDUCATION
RECOGNIZED SCHOOL

Seatwork: Adding and Subtracting Polynomials

Like terms - whose variables (and their exponents) are the same.

Example:

1) $2xy^2$, $-4xy^2$ - They are similar because they have both xy^2 .
2) y^2z , $-9yz^2$ -They are not similar.
3) $\frac{1}{3}a^2t^5$, $3t^5a^2$ - they are similar.

Direction: Identify if the following terms are like terms or not. Write *like* if they are like terms and *not* if they are not.

1) $4xy$, $2x^2y$ -
2) $-\frac{1}{2}yx^3$, $2x^3y$ -
3) $-6m^4y$, $3y^4m$ -
4) $\frac{5}{r^2s^4}$, $-3r^2s^4$ -
5) 8fgr , -12rfg -

Azizah Pajemolin

Adding Polynomials

In adding polynomials, we only add terms which are alike.

Example:

$(2xy^2 + 3x^2y) + (-4xy^2 + 5x^2y)$	Given
$(2xy^2 + 3x^2y) + (-4xy^2 + 5x^2y)$	Like terms: $2xy^2$ and $-4xy^2$ $3x^2y$ and $5x^2y$
$[2xy^2 + (-4xy^2)] + [3x^2y + 5x^2y]$	Combine like terms.
$(2 + (-4))\,xy^2 + (3 + 5)\,x^2y$	Add only the numerical coefficients of those who were like terms, then copy their variables(and the exponent).
$-2xy^2 + 8x^2y$	Sum

Direction: Add as indicated.

1) $(x^3 + x^2 + 7x - 14) + (18x^3 + 20) =$

	Given
	Like terms:
	Combine like terms.
	Add only the numerical coefficients of those who were like terms, then copy their variables(and the exponent).
	Sum

2) $(-12m^6 - 9m^4 + 15m^2) + (4m^6 + 5m - 25) =$

3) $(17d^3 - 2d^2 + 15) + (-12d^3 + 9d^2 + d - 18) =$

Subtracting Polynomials

In subtracting polynomials, change subtraction into addition then change the sign/s of the subtrahend then proceed in adding polynomials.

Example:

$(2xy^2 + 3x^2y) - (-4xy^2 + 5x^2y)$	Given
$(2xy^2 + 2x^2y) + (4xy^2 - 5x^2y)$	Change: $- \;>\; +$ $-4xy^2 \;>\; 4xy^2$ $5x^2y \;>\; -5x^2y$
$(2xy^2 + 3x^2y) + (4xy^2 - 5x^2y)$	Like terms: $2xy^2$ and $4xy^2$ $3x^2y$ and $-5x^2y$
$[2xy^2 + 4xy^2] + [3x^2y + (-5x^2y)]$	Combine like terms.
$(2 + 4)\,xy^2 + (3 + (-5)\,x^2y$	Add only the numerical coefficients of those who were like terms, then copy their variables(and the exponent).
$6xy^2 - 2x^2y$	Difference

Direction: Subtract as indicated.

1) $(x^3 + x^2 + 7x - 14) - (18x^3 + 20) =$

	Given
	Change:
	Like terms:
	Combine like terms.
	Add only the numerical coefficients of those who were like terms, then copy their variables(and the exponent).
	Difference

2) $(-12m^6 - 9m^4 + 15m^2) - (4m^6 + 5m - 25) =$

3) $(17d^3 - 2d^2 + 15) - (-12d^3 + 9d^2 + d - 18) =$

Azizah Pajemolin