

Welcome to Mrs. Hagen's Math Class
Please get a yellow starter from the front of the room as you walk in.

August 22

- Starter 1
- Name Cards
- Pre-Test
- 1.1 Add, Subtract, Multiply Polynomials

Aug 22-7:15 AM

Aug 22-7:16 AM

1.1 Add & Subtract Polynomials Notes

What is a polynomial?
many terms • constant, variable, product
no fraction powers
no negative power

How do you name the degree of the polynomial?
The highest exponent
In order from highest exponent to lowest

What is standard form for a polynomial?
Decide whether each expression is a polynomial. If it is, place it in standard form, state the degree, leading coefficient of the polynomial. If it is not, explain why not.

Ex 1) 65 Ex 2) $3x^2 - 4x + 13 - 2x^5$ Ex 3) $45xy^3z^2$ Ex 4) \sqrt{x} , NO

yes yes No $\sqrt[3]{x}$ \sqrt{x} , NO

$65x^0$ zero $-2x^5 + 3x^2 - 4x + 13$ $x^{\frac{1}{2}}$

~~$65x^1$~~ 5th degree $x^{\frac{1}{2}}$

LC: -2

How to add and subtract polynomials:
Combine like terms
Same exponent, same variable(s)

$5x + 3x = 8x$

Simplify the following expressions by adding or subtracting the polynomials together.

Ex 5) $13x^5 + 13x^2 - 11$
 $4x^2 + 9x^2$

Ex 6) \dots

Ex 7) \dots

Solve for (?).

Ex 8) \dots

Ex 9) \dots

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Aug 22-7:21 AM

Ex 6)

$(5b + 7b^2) - (9b - 22b^2)$
distribute the negative

$5b + 7b^2 - 9b + 22b^2$

$-4b + 29b^2$

$29b^2 - 4b$

Ex 7) $(4y^3 - 13y^7) - (-16y^7 - 35y^3) + (4y^7 - 8y^3)$

$4y^3 - 13y^7 + 16y^7 + 35y^3 + 4y^7 - 8y^3$

$7y^7 + 31y^3$

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$$3x^3 + 2x + 1 + (?) = 9x^3 + 5x^2 + 7x + 4$$

$$3x^3 + \underline{6x^3} = 9x^3$$

$$0x^2 + \underline{5x^2} = 5x^2$$

$$2x + \underline{5x} = 7x$$

$$1 + \underline{3} = 4$$

$$\boxed{6x^3 + 5x^2 + 5x + 3}$$

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Ex. 9

$$4y^3 + 2y^2 - 3y - 5 - ? = -2y^3 + 4y^2 - 5y + 3$$

$$4y^3 - \underline{6y^3} = -2y^3$$

$$2y^2 - \underline{-2y^2} = 4y^2$$

$$-3y - \underline{2y} = -5y$$

$$-5 - \underline{-8} = 3$$

$$\boxed{6y^3 - 2y^2 + 2y - 8}$$

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Homework

- calculator
- disclosure
- 1.1 # 1-12

Aug 22-10:43 AM