

## POLYNOMIALS

POLYNOMIAL:

4 or more Terms.

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MUST STILL MEET THESE CONDITIONS!

1. No Neg Exp
2. No Fract. Exp.

## NAMING POLYNOMIALS

A polynomial can be classified according to how many "terms" it has.

Category	Sample
monomial	$\frac{5}{2}x^2y^3$
binomial	$4x^2 - 9x$
trinomial	$2x^2 + 3x + 1$
polynomial	$3a^4b + 7bc^2 + 6cd - 8$

## Simplifying Polynomials

1. Distribute

2. Apply Exp. Rules

3. Like Terms

## EXAMPLES

$$(11x^3 - 14x^2) + (3x^2 - x^3)$$

$$\cancel{11x^3} - 14x^2 + 3x^2 - \cancel{x^3}$$

$$10x^3 - 11x^2$$

## EXAMPLES

$$(13n^3 + 11n^4 + 8) + (5 + 11n - 2n^4)$$

$$\cancel{13n^3} + \cancel{11n^4} + \cancel{8} + 5 + 11n - \cancel{2n^4}$$

$$\cancel{13n^3} + \cancel{9n^4} + 13 + 11n$$

$$(9n^4 + 13n^3 + 11n + 13)$$

## EXAMPLES

$$(3x^5 + 14x + 10) - (9 - x^4 + 3x^5)$$

$$\cancel{3x^5} + 14x + 10 - 9 + x^4 - \cancel{3x^5}$$

$$x^4 + 14x + 1$$

## EXAMPLES

The sides of a rectangle have a length of  $x + 4$  units and a width of  $2x + 5$  units.

Which of the following represents the perimeter of the rectangle?

A  $3x + 9$  units

**B  $6x + 18$  units**

C  $4x + 10$  units

D  $2x + 8$  units

