Polynomials: Many Terms

Polynomials have many practical applications in modern healthcare such as calculating medicine dosages and monitoring patient progress.

I'll recall some of my previous algebra knowledge using the polynomials shown here.

$3x^2$

A polynomial is an algebraic expression.

$8xy + 5$

Polynomials contain algebraic terms that are connected using addition and subtraction.

$8n^2 + 2n - 4$

- Can I identify the terms in each polynomial?

The terms in a polynomial consist of numbers, variables, or the product of numbers and variables.

- How would I explain this statement using the polynomials shown below?

$3x^2$ $\quad$ $8xy + 5$ $\quad$ $8n^2 + 2n - 4$

A polynomial is named or classified by counting the number of terms it contains.

- How would I explain my thinking in naming or classifying each polynomial shown below?

$3x^2$ $8xy + 5$ $8n^2 + 2n - 4$

The degree of a term is the sum of the exponents on the variable(s) in a single term.

- How would I explain and illustrate this statement using the terms in each polynomial?

$3x^2$ $8xy + 5$ $8n^2 + 2n - 4$

The term with the greatest exponent or the greatest sum of exponents determines the degree of the polynomial.

- How would I explain my thinking when determining the degree of each polynomial?

$3x^2$ $8xy + 5$ $8n^2 + 2n - 4$

Consider the trinomial written below.

$$-7 + 5x + 2x^2$$

The standard form for writing a polynomial is in descending order.

- How would I use the trinomial to explain a polynomial written in descending order?

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Which statements do I feel confident explaining and demonstrating?
Which statements do I not feel confident explaining and demonstrating?