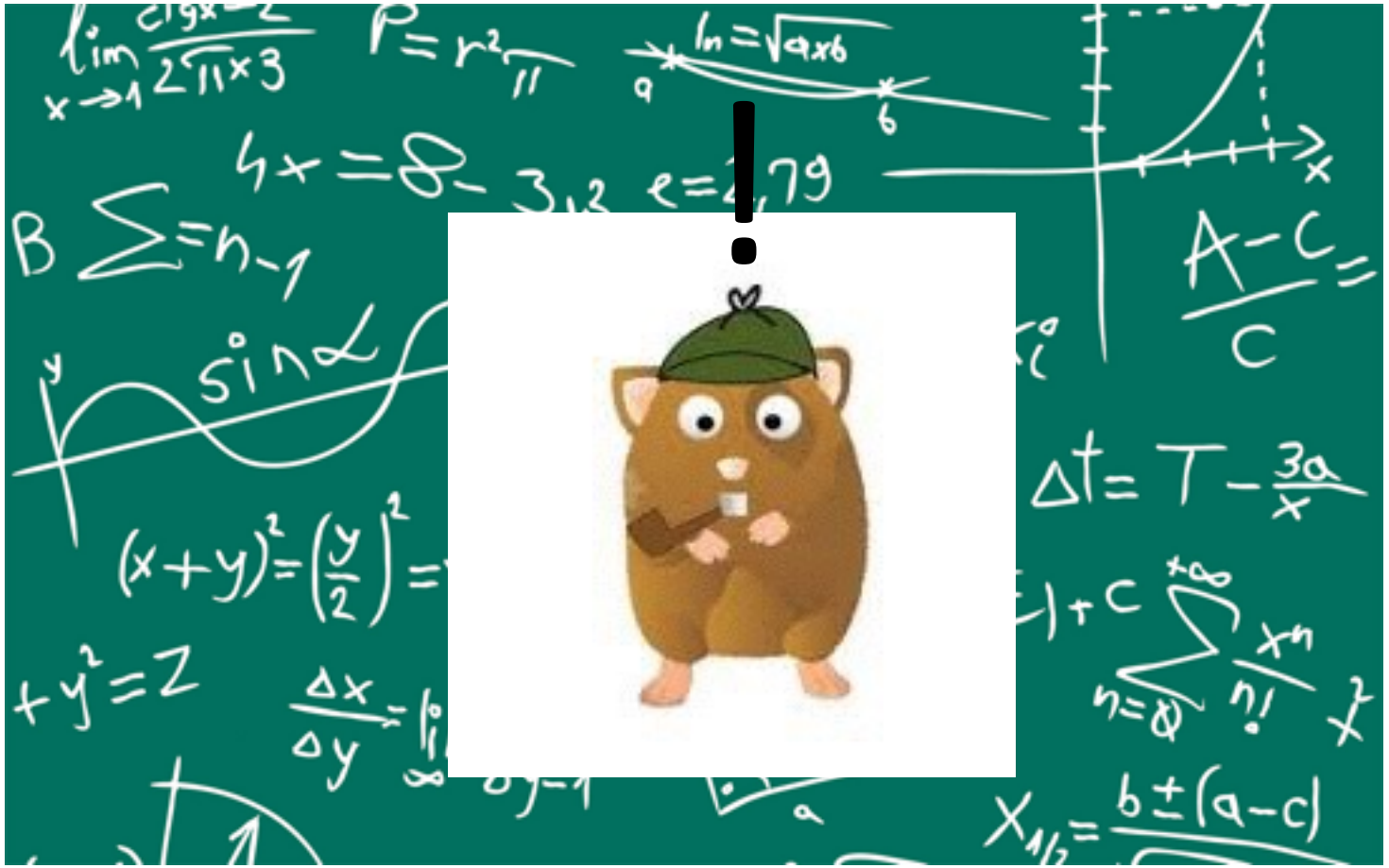
Title of Lesson: 3.1.1: Identifying Terms, Factors, and Coefficients



By the end of this lesson, I will be able to answer the following questions…

1. How do I categorize parts of an expression?

2. How do I write an expression based on a description?

3. How do I relate these tools to geometric problems?

Vocabulary

1. Monomial: One Term → $3x$, $-12x^2$, 1000

   Binomial: Two Term → $2x-4$, x^2+1

   Trinomial: Three Terms → $2x^3+4x-4$

2. Constant → 4, -300, $\frac{1}{3}$

   Linear → $3x+1$, $4x$

   Quadratic → x^2+x, $3x^2-x+1$

3. Coefficient $24x^2$ $-100x^3$

Prerequisite Skills with Practice

Collect like terms: $34-x^2-50+x-7x$ $10x^3-3x^2-4x^3+x^2$

Standard form

Distributive property: $2x(x^2+x-1)$ $2x^2-3(2x^2+1)$

Identify each **term**, **coefficient**, and **constant** of $6(x - 1) - x(3 - 2x) + 12$.

Classify the expression as a **monomial**, **binomial**, or **trinomial**.

Determine whether it is a quadratic expression.

Translate the verbal expression …

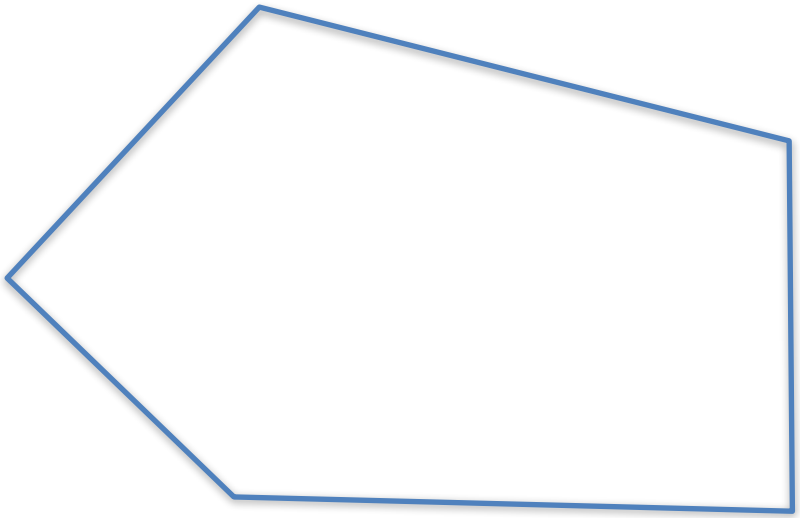
Triple the difference of 12 and the square of x, then increase the result by the sum of 3 and x

…into an algebraic expression. Identify the **terms, coefficients,** and **constants** of the given expression. Is the expression quadratic?

A fence surrounds a park in the shape of a pentagon. The side lengths of the park in feet are given by the expressions

$(5x - 3)$, $(3x + 1)$, $(3x + 2)$, $4x$, and x^2

Find an expression for the perimeter of the park. Identify the terms, coefficients, and constant in your expression. Is the expression quadratic?



THE END

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