



Vocabulary: Modeling the Factorization of $x^2 + bx + c$



Vocabulary

- **Factor** – to express a number or polynomial as a product.
 - Example: $20 = 2 \cdot 2 \cdot 5 = 2^2 \cdot 5$
 - Example: $x^2 - 9 = (x + 3)(x - 3)$
 - The values multiplied together are called *factors*.
- **Monomial** – a number, a variable, or the product of numbers and variables.
 - Some examples of monomials are 7, y^5 , $\frac{4x}{3}$, and $-9ab^2$.
 - *Monomials* can also be called *terms*.
 - Any exponents in a monomial must be positive integers.
- **Polynomial** – an expression consisting of one or more monomials added to or subtracted from each other.
 - A *binomial* is a polynomial with exactly two terms.
 - Examples: $5c^3 - 6$, $2xy + 7x^2$
 - A *trinomial* is a polynomial with exactly three terms.
 - Examples: $2m^2 - 6m + 5$, $8a^2 + 21ab + 34b^2$
- **Zero pair** – a pair of numbers or monomials whose sum is zero.
 - For example, $-x$ and x are a zero pair, because $-x + x = 0$.

