

Prime Time 4.1

conjecture

A claim about a pattern or relationship based on observations.

equivalent expressions

Expressions that represent the same quantity. For example, $2+5$, $3+4$, and 7 are equivalent expressions. You can apply the Distributive Property to $2(x+3)$ to write the equivalent expression $2x+6$. You can apply the Commutative Property to $2x+6$ to write the equivalent expression $6+2x$.

even number

A multiple of 2. When you divide an even number by 2, the remainder is 0. Examples of even numbers are 0, 2, 4, 6, 8, and 10.

odd number

A whole number that is not a multiple of 2. When an odd number is divided by 2, the remainder is 1. Examples of odd numbers are 1, 3, 5, 7, and 9.

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Distributive Property

A mathematical property used to rewrite expressions involving addition and multiplication. The Distributive Property states that for any three numbers a , b , and c , $a(b+c)=ab+ac$. If an expression is written as a factor multiplied by a sum, you can use the Distributive Property to multiply the factor by each term in the sum.

$$4(5+x)=4(5)+4(x)=20+4x$$

If an expression is written as a sum of terms and the terms have a common factor, you can use the Distributive Property to rewrite the expression as the common factor multiplied by a sum. This process is called factoring.

$$20+4x=4(5)+4(x)=4(5+x)$$

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expanded form (expression)

The form of an expression made up of sums or differences of terms rather than products of factors. The expressions $20+30$, $5(4)+5(21)$, $x^2+7x+12$, and x^2+2x are in expanded form.

factored form

The form of an expression made up of products of factors rather than sums or differences of terms. The expressions $2 \times 2 \times 5$, $3(2+7)$, $(x+3)(x+4)$, and $x(x-2)$ are in factored form.

Order of Operations

A set of agreements or conventions for carrying out calculations with one or more operations, parentheses, or exponents.

1. Work within parentheses.
2. Write numbers written with exponents in standard form.
3. Do all multiplication and division in order from left to right.
4. Do all addition and subtraction in order from left to right.

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No new vocabulary terms.