

# Equations, Expressions & Inequalities

I) An **equation** is a mathematical statement, in symbols, that two things are the same (or equivalent). Equations are written with an equal sign. Some expressions will ask you to find *missing numbers*. These are called *algebraic equations*. Expressions are number sentences.

Examples:  $2 + 3 = 5$        $(4 - 3) \times 5 = 5$        $10 + x = 20$

II) An **expression** (or numerical expression) represents a single value. It consists of one or more numbers and operations, but *no equal sign*. Some expressions will ask you to find *missing numbers*. These are called *algebraic expressions*.

Examples:  $3 \cdot 4$        $3.4 \div 5$        $(4 - 3) \times 5$        $10 + x$

III) An **inequality** (not equal) compares two values, showing if one is less than, greater than, or simply not equal to another value. Inequalities are number sentences.

Examples:  $5 > 4$        $4 \times 4 < 20$        $29 - 2 > 15 + 2$