

Brackets, Equations and Inequalities

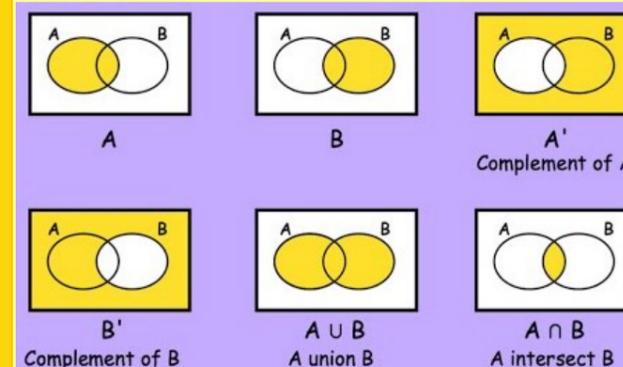
Algebraic Term	Single numbers, letters, a variable or the product of numbers and variables. E.g. 5, b, $-7c$, a^2
Expression	An expression contains algebraic terms that are made up of numbers, letters and operators. e.g. $7+3$, $a^2 + b^2$
Equation	A statement that two things are equal. It contains expressions on both sides of the equal sign. e.g. $5 = 2x + 1$
Identity	An equation that holds true for all values of the variable. E.g. $2x+3x \equiv 5x$ for all values of x
Inequality	When a variable can hold a range of values. It does not have to be equal to another value. \neq not equal to \leq less than or equal to $<$ less than \geq greater than or equal to $>$ more than
Like Terms	Like terms they must share the same variable and can be collected together.
Unlike Terms	Terms which cannot be collected together and simplified. E.g. $3x$ and $4y$ are unlike terms.
Variable	Something that can take a range of values. We often use a letter to represent it such x , y , z etc.
Co-efficient	The number in front of a variable . It is usually an integer but can be a decimal or fraction. It shows what the variable has been multiplied by. E.g. $4y$, 4 is the coefficient.
Unknown	Another word for a variable , a value we don't know yet.
Quadratic Expression	An expression where the highest power of a variable is 2 e.g. $3x^2 + 5x$ or $x^2 + 5x + 6$

Working in the Cartesian

Cartesian co-ordinates	A point on a grid reference given by the position on the x and y axis. They are written in the form (x,y)
Quadrants	The four regions separated by the x and y axis.
x - coordinate	The first number in a coordinate and is the horizontal value.
y - coordinate	The second number in a coordinate and is the vertical value.
Origin	The name given to the coordinate $(0,0)$.
Horizontal Lines	Lines that go in a left—right direction. Their equations are in the form $y = n$
Vertical Lines	Lines that go in an up—down direction. Their equations are in the form $x = n$
Linear Graphs	A graph that produces a continuous straight line.
Non-Linear Graphs	A graph that does not produce a continuous straight line. It is usually curved.
Y- Intercept	Where a line crosses the y – axis. At this point the x value (coordinate) will always be zero.
Gradient	The steepness of a line.
Parallel	Straight lines that are of equal distance apart. They will never cross each other.
Perpendicular	Straight lines that intersect at a right angle. (90°)

Tables and Probability

Event	A possible outcome of a trial. E.g. Rolling a 2 on a dice is an event.
Trial	An experiment. E.g. Flipping a coin or rolling a dice are trials.
Probability	The likelihood or chance of an event happening.
Fair	Each event has an equal chance of occurring.
Biased	Not fair. Some outcomes have a greater chance of occurring than others.
Element	An item contained within a set.
Set	A collection of items. E.g. $A = \{2,3, 4\}$ means set A contains the elements 2, 3 and 4
Intersection	Where elements are common (appear) in two or more sets. (\cap)
Union	The set of elements that belong to either, or both, of a given pair of sets. (\cup)
Complement	when elements are not in a given set. $(')$



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