Algebra

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Word	Example
binomial /baɪ'nəʊmɪəl/	$x + 3$ is a **binomial** because it has two terms. $x + 3$
rational expression /'ræʃənl ek'spreʃn/	$(x + 1)/(x - 2)$ is a **rational expression**. $(x + 1)/(x - 2)$
identity /aɪ'dentɪti/	$2(x + 1) = 2x + 2$ is an **identity**: it is true for every x. $2(x + 1) = 2x + 2$ x
proof /pru:f/	A **proof** must justify every case covered by its claim.
consecutive integers	5 and 6 are **consecutive integers**. 5 6
function /'fʌŋkʃn/	A **function** returns a value.
domain /də'meɪn/	Leave zero out of the **domain** when x is on the bottom of a fraction. x
range /reɪndʒ/	The **range** of $f(x) = x^2$ is all values greater than or equal to zero. $f(x) = x^2$
composite function /'kɒmpəzɪt 'fʌŋkʃn/	A **composite function** fg(x) means f(g(x)): apply g first. fg(x) f(g(x)) g
inverse function /ɪn'vɜ:s 'fʌŋkʃn/	The **inverse function** undoes the original function.
quadrant /'kwɒdrənt/	An angle of 200° lies in the third **quadrant**, where sine and cosine are both negative. 200°
parallel lines /'pærəlel laɪnz/	Distinct **parallel lines** keep the same direction and never meet.

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perpendicular /ˌpɜːpənˈdɪkjʊlə/	The wall is **perpendicular** to the floor.
cubic /ˈkjuːbɪk/	$x^3 + 2x$ is a **cubic** expression. $x^3 + 2x$
intercept /ˌɪntəˈsept/	The line crosses the y-axis at the **intercept**. y
turning point /ˈtɜːnɪŋ pɔɪnt/	The **turning point** is the top or bottom of the curve.
completing the square /kəmˈpliːtɪŋ ðə skweə/	**Completing the square** turns $x^2 + 6x$ into $(x + 3)^2 - 9$. $x^2 + 6x$ $(x + 3)^2 - 9$
trapezium /trəˈpiːzɪəm/	Split the area under the graph into a **trapezium** and a triangle.
differentiation /ˌdɪfəˌrenʃɪˈeɪʃn/	**Differentiation** finds how a function changes at each input.
gradient function /ˈgreɪdɪənt ˈfʌŋkʃn/	The **gradient function** gives a slope for each input value.
derivative /dɪˈrɪvətɪv/	Use the **derivative** to find the curve's slope at this point.
tangent /ˈtændʒənt/	Draw a **tangent** to the curve to find the gradient at one point.
stationary point /ˈsteɪʃənəri pɔɪnt/	The tangent is horizontal at a **stationary point**.
maxima or minima /ˈmæksɪmə ɔː ˈmɪnɪmə/	Find **maxima or minima** by checking how the gradient changes.
point of inflection /pɔɪnt ɒv ɪnˈflekʃn/	At a **point of inflection**, the curve changes from bending one way to the other.

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quadratic equation /kwɒˈdrætɪk ɪˈkweɪʒn/	$x^2 - 5x + 6 = 0$ is a **quadratic equation**. $x^2 - 5x + 6 = 0$
quadratic inequality /kwɒˈdrætɪk ɪniːˈkwɒlɪti/	$x^2 - 4 < 0$ is a **quadratic inequality**. $x^2 - 4 < 0$
nth term /ˌenˌtiːˈeɪtʃ tɜːm/	The **nth term** of 5, 8, 11, ... is $3n + 2$. 5, 8, 11, ... $3n + 2$
quadratic sequence /kwɒˈdrætɪk ˈsiːkwəns/	A **quadratic sequence** has constant nonzero second differences.
second difference /ˈsekənd ˈdɪfrəns/	A constant **second difference** means the sequence is quadratic.

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