Functions

International Baccalaureate · IB Diploma · Mathematics: Applications and Interpretation · SL · Vocabulary in context

Word	Example
model /ˈmɒdl/	This **model** keeps wages fixed so we can see the effect of one change.
gradient /ˈgreɪdɪənt/	The **gradient** of a distance-time graph gives the speed. $\frac{-}{}$
parallel /ˈpærəlel/	**Parallel** lines have equal gradients and never meet.
perpendicular /ˌpɜːpənˈdɪkjʊlə/	The wall is **perpendicular** to the floor.
linear model /ˈlɪnɪə ˈmɒdl/	A **linear model** $y = mx + c$ changes at a constant rate. $y = mx + c$
function /ˈfʌŋkʃn/	A **function** returns a value.
domain /dəˈmeɪn/	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. $f(x) = x^2$
inverse function /ɪnˈvɜːs ˈfʌŋkʃn/	The **inverse function** undoes the original function.
zero /ˈzɪərəʊ/	A **zero** of a function is where its graph crosses the x-axis. x
asymptote /ˈæsɪmptəʊt/	The graph of $y = e^x$ has a horizontal **asymptote** at $y = 0$. $y = e^x$ $y = 0$
quadratic model /kwɒˈdrætɪk ˈmɒdl/	A **quadratic model** describes the path of a thrown ball.

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axis of symmetry /ˈæksɪs ɒv ˈsɪmətri/	The **axis of symmetry** of $y = x^2$ is the y-axis. $y = x^2$ y
exponential model /ˌekspəˈnenʃl ˈmɒdl/	The **exponential model** links diode current and voltage with an exponential curve.
directly proportional /daɪˈrektli prəˈpɔːʃənl/	The cost of petrol is **directly proportional** to the litres you buy.
inversely proportional /ɪnˈvɜːsli prəˈpɔːʃənl/	Journey time is **inversely proportional** to speed.
sinusoidal model /ˌsaɪnəˈsɔɪdl ˈmɒdl/	A **sinusoidal model** can describe the height of the tide.
period /ˈpɪərɪəd/	The **period** of the wave is 0.02 s. 0.02 s
amplitude /ˈæmplɪtjuːd/	Loud sounds have a large **amplitude**.
principal axis /ˈprɪnsɪpl ˈæksɪs/	The graph $y = 3 \sin x + 1$ has **principal axis** $y = 1$. $y = 3 \sin x + 1$ $y = 1$
assumption /əˈsʌmpʃn/	The argument rests on one **assumption**: that all students have a phone.
interpolation /ɪnˌtɜːpəˈleɪʃn/	**Interpolation** estimates a value inside the range of the data.
extrapolation /ekˈstræpəleɪʃn/	Predicting beyond the data is **extrapolation**.

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