



Graphical Methods Checklist

Achievement

I can:

Draw non-linear graphs from equations based on a selection from:

- Quadratics that can be factorised or put in the form $y = a(x - h)^2 + k$
- Factorised polynomials (coefficient of $x^n = 1$)
- Rectangular hyperbolae of the form $y = k/x$
- Exponential functions of the form $y = ax$, where $a \in \mathbb{N}$
- Logarithmic functions of the form $y = \log_a x$, where $a \in \mathbb{N}$

Graphs will show correct use of relevant features including:

- Intercepts
- Symmetry
- Maxima and minima
- Asymptotes
- Behavior of graphs at large values of x and y

Merit

I can

- Draw graphs of equations or write equations for given graphs
- Interpret features of graphs

Assessment of plotting graphs and identifying features will be based on a selection from:

- Rectangular hyperbolae of the form $y = k/x$
- Exponential functions of the form $y = a^x$ or $y = a^{(bx + c)}$, where b or $c = 0$
- Logarithmic functions of the form $y = a \log_b(x)$ or $y = a \log_b(bx + c)$, where b or $c =$

Excellence

I can:

- Determine and apply an appropriate graphical model for a situation

The model could include more than one equation, or piecewise function, to describe a situation:

Graphs could include:

- Cubics and parabolas with coefficient of $x^n \neq 1$
- Exponential functions of the form $y = a^{(bx + c)}$, where b and $c \in \mathbb{R}$
- Logarithmic functions of the form $y = a \log_b(bx + c)$, where b and $c \in \mathbb{R}$