

Checklist

What you should know

By the end of this subtopic you should be able to:

- model relationships between two variables that are related with a constant rate of change using linear functions
- find the vertex, axis of symmetry and y -intercept of a quadratic function from its standard form
- find the vertex, axis of symmetry and y -intercept of a quadratic function from its vertex form
- find the vertex, axis of symmetry and y -intercept of a quadratic function from its factorised form
- determine the domain and range of a quadratic function
- use the method of completing the square to transform a quadratic function from standard form to vertex form
- transform quadratic functions from one form to another
- use a GDC to find the x -intercepts of a parabola
- sketch a parabola, showing all relevant features such as the vertex, the axis of symmetry, the y -intercept and the x -intercepts if there are any
- use a GDC to graph cubic functions and find all relevant features
- find the domain, range, asymptotes and axes intercepts of exponential functions
- sketch the graphs of exponential functions by showing all relevant features
- apply exponential models to real-life situations
- determine whether a function shows periodic behaviour
- find the amplitude, principal axis and period of trigonometric functions.

