PLOTTING QUADRATIC GRAPHS

The purpose of this homework is to develop your ability to sketch quadratic graphs accurately and understand their key features.

To Know: Identify and plot key points of a quadratic graph including the y-intercept, roots (x-intercepts), vertex, and axis of symmetry to draw the curve correctly.

To Remember: How to substitute values into equations to find coordinates and solve quadratic equations algebraically (e.g., factorising or using the quadratic formula) to determine roots.

Example: Plot the graph of $y = x^2 - 4x + 3$ for x-values from 0 to 4. Show all working, including:
- The y-intercept when $x = 0$
- The roots where $y = 0$
- The vertex coordinates
- A table of values for at least five points
- A clearly labelled sketch of the parabola.

Watch the video on the worksheet if you are unsure of how to complete any of the work.