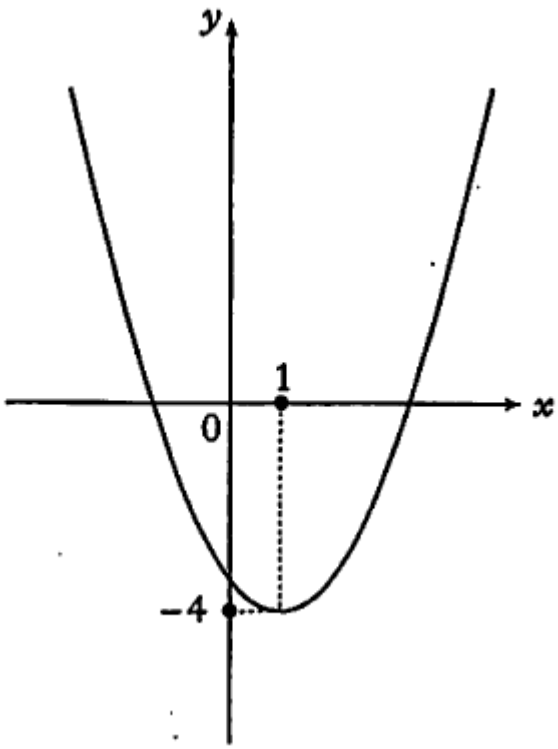
Q1. State for the following functions the
(i) Turning Point
(ii) The nature of the turning point
(iii) The axis of symmetry
(iv) The y-intercept

(a) $y = (x - 1)^2 + 2$ (b) $y = -(x + 2)^2$ (c) $y = x^2 + 2x - 15$ (d) $y = (x - 1)(x + 7)$

Q2. State the equation of the function below



Q3. A parabola has equation $y = x^2 - 8x + 19$.

(a) Write the equation in the form $y = (x - p)^2 + q$.

(b) Sketch the graph of $y = x^2 - 8x + 19$, showing the coordinates of the turning point and the point of intersection with the y-axis.

Q4. Solve the following: (Find the roots)

(i) $x^2 - 4x = 0$ (ii) $x^2 + 7x + 12 = 0$ (iii) $(x - 3)^2 = 0$ (iv) $2x^2 - 5x - 3 = 0$