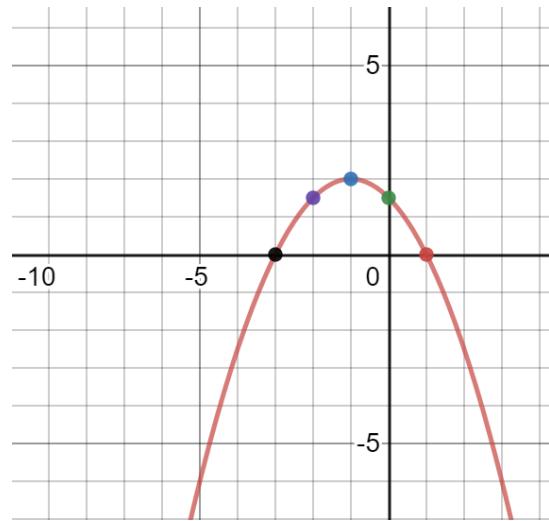


**Section 4.1 and 4.2 – Checking Your understanding**

Answer the following four questions, show as many steps as you need to, write clearly and neatly.

1. Find the equation of the given graph in the form:  $f(x) = a(x - h)^2 + k$



2. Find the Vertex by completing the square, the  $x$  - intercepts (if possible), and  $y$  - intercepts

$$f(x) = -2x^2 - 6x - 4$$

3. Find the Vertex, by Completing the Square of:

$$g(x) = 3x^2 + 6x + 2$$

4. Given the following Equation, state the Vertex, Max/Min, Axis of Symmetry, Domain and Range, and *y* – *intercept*

$$y = -2(x + 3)^2 - 4$$