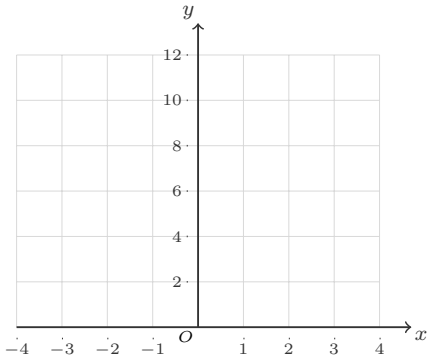
Join the points with a smooth curve drawn freehand, in one movement. A parabola has no straight edges and no corner at the bottom.

1 Complete the table and draw the graph of $y = x^2$.

x	-3	-2	-1	0	1	2	3
y							



(a) The table (2)

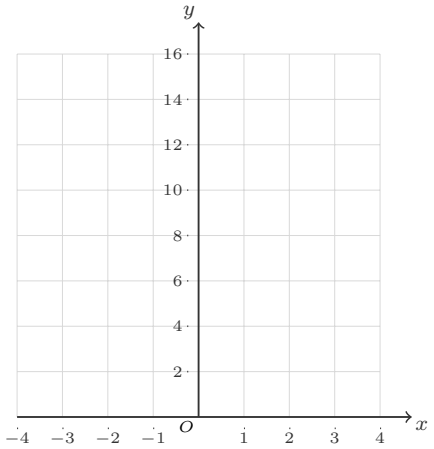
(b) The graph (2)

(c) Write down the coordinates of the lowest point (1)

(5 marks)

2 Complete the table and draw the graph of $y = x^2 + 3$.

x	-3	-2	-1	0	1	2	3
y							



(a) The table (2)

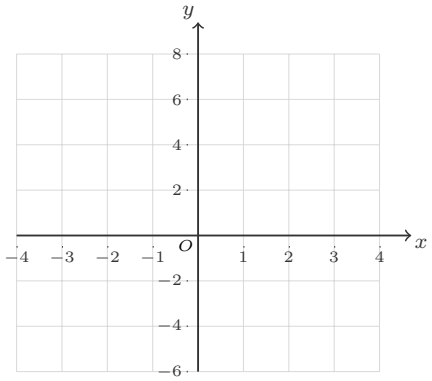
(b) The graph (2)

(c) Write down the coordinates of the lowest point (1)

(5 marks)

3 Complete the table and draw the graph of $y = x^2 - 4$.

x	-3	-2	-1	0	1	2	3
y							



(a) The table (2)

(b) The graph (2)

(c) **Write down the two values of x where the curve crosses the x-axis.** (2)

(6 marks)