

## Sketching a Quadratic Graph

To sketch a graph we need to find a set of points. This is most easily done by drawing up a table. The table for the graph given by the equation  $y = x^2 - x + 1$ .

$x$	-3	-2	-1	0	1	2	3
$x^2$	9	4	1	0	1	4	9
$-x$	3	2	1	0	-1	-2	-3
$+1$	1	1	1	1	1	1	1
$y$	13	7	3	1	1	3	7

When filling in the table the most important thing to remember is that when you square a minus number you obtain a positive number, eg  $-3^2 = 9$  not -9.

DO NOT RELY ON YOUR CALCULATOR TO WORK OUT THE SQUARE OF A MINUS NUMBER.

Your calculator will tell you that  $-3^2 = -9$  which is exactly wrong:  $-3^2 = 9$  is correct. The graph is shown below.

