

Mathematics

Plotting Quadratics 2

Mrs Buckmire



Try this

Fill in the missing values in the tables

x	-3	-2	-1	0	1	2
$y = x^2$		4			1	4

x	-10	0	1	4	10	100
$y = x^2 + x$				20	110	

x	-100	-10	0	1		9
$y = x^2 - 2x$					15	



Independent task

Decide if the following equations would produce quadratic graphs or not.

If quadratic, match the equation with one that would produce the same curve.

Check by testing with coordinates.

$y = \sqrt{x}$	$x^2 = \frac{y}{2}$	$y = (x - 2)x$	$y = x^2$	$y = 3(2+x)$
$\sqrt{y} = x$	$x(2 + x) = y$	$y = \frac{2}{x}$	$y = x^2 + 2x$	$y = 2^2x$
$y = 2x^2$	$x = y^2$	$y = x^2 - 2x$	$2x = y$	$x = \sqrt{\frac{y}{2}}$



Explore

Do you think these are quadratic, linear or other?

$$y = x^2 + x$$

$$y + x = 10$$

$$2x^2 = y$$

$$x + y = 10^2$$

$$y = x(x + 1)$$

Plot the graphs to see if you're right.

Do any of the quadratics have any coordinates in common?

