

# Solving quadratics

## Section A

Rearrange these equations and solve to find  $x$ :

1.  $4 = x^2 + 5x + 10$

4.  $2x + 1 = x^2 + 3x - 11$

2.  $1 = x^2 + 3x + 3$

5.  $5x - 2 = x^2 + 11x + 6$

3.  $3x - 4 = -x^2 + 9x + 3$

6.  $2 = x^2 + 6x + 11$

## Section B

We want to solve the equation  $x + 9 = x^2 + 7x + 2$ .

How can we get this into the form  $x^2 + 6x - 7$ ?

Use the graph  $y = x^2 + 6x - 7$  to solve  $x + 9 = x^2 + 7x + 2$ .

Use the graph  $y = x^2 + 15x + 54$  to solve the equation  
 $-6x + 10 = x^2 + 9x + 64$ .

Use the graph  $y = x^2 - 12x + 32$  to solve the equation  
 $x^2 + x + 32 = 13x$ .

Use the graph  $x = y^2 + 3y - 4$  to solve the equation  
 $-2y - 3 = y^2 + y - 7$ .