# Y1 Algebra and Functions | Simultaneous Equations

### **Question 1**

Solve these simultaneous equations:

$$x^2 + y^2 = 10$$

$$y + 2 = x$$

### **Question 2**

Solve the simultaneous equations

$$y = x^2 - 6x$$

$$2y + x - 6 = 0$$

### **Question 3**

Solve the simultaneous equations

$$x^2 + y^2 = 34$$

$$3x - y + 4 = 0$$

#### **Question 4**

The line  $l_1\,$  has equation  $y=3x+2\,$  and the line  $l_2\,$  has equation  $3x+2y-8=0\,$  .

The point of intersection of  $l_1\,$  and  $l_2\,$  is  $P.\,$  Find the coordinates of  $P\,$  .

## **Question 5**

Solve the simultaneous equations

$$2x + y - 5 = 0$$

$$x^2 - y^2 = 3$$

## **Question 6**

Solve the simultaneous equations

$$y + 4x + 1 = 0$$

$$y^2 + 5x^2 + 2x = 0$$