

Simultaneous Equations



- i.** Solve the following pairs of linear simultaneous equations to find x and y

$$x = y + 3$$

$$x = 2y - 5$$

$$y = 3x$$

$$x = 2y + 10$$

$$2x + 3y = 19$$

$$4x + y = 23$$

$$x = 5y - 5$$

$$y = x - 7$$

- ii.** Solve the following pairs of simultaneous equations to find x and y .

$$x = 3y^2$$

$$y = 2x$$

$$x^2 = y$$

$$y = 3x$$

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

$$y = 4$$

$$y = x^2 + 4x + 6$$

$$y = 2$$

- iii.** Solve the following pairs of simultaneous equations to find values for x and y . Leave answers in surd form, where appropriate.

$$x^2 + y^2 = 4$$

$$x = 1$$

$$y = x^2 + 30$$

$$y = 11x$$

$$x^2 + 6x = y + 3$$

$$y + 2x = -15$$

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

$$y = 4x$$

- iv.** The curve $x^2 + y^2 = 25$ and the line $y = 3$ cross at two points. Find the coordinates of these points of intersection.