

- 1) Solve these simultaneous equations.

$$y = x$$

$$y = x^2 - 6$$

- 2) Solve these simultaneous equations.

$$y = x^2 - 4$$

$$y = 3x$$

- 3) Solve these simultaneous equations.

$$y = x^2 - x - 13$$

$$y = x + 2$$

- 4) Solve these simultaneous equations.

$$y = x^2 - 35$$

$$x - y = 5$$

- 5) Solve these simultaneous equations.

$$x^2 + y^2 = 26$$

$$y + 6 = x$$

- 6) Sarah said that the line  $y = 7$  cuts the curve  $x^2 + y^2 = 25$  at two points.

a) By eliminating  $y$  show that Sarah is **not** correct.

b) By eliminating  $y$ , find the solutions to the simultaneous equations

$$x^2 + y^2 = 25$$

$$y = 3x - 9$$