

Name: _____

GCSE (1 – 9)

Quadratic Simultaneous Equations

Instructions

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all your working out.**

Information

- The marks for each question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end

1 Solve the simultaneous equations

$$x^2 + y^2 = 13$$

$$x = y - 5$$

$$x = \dots\dots\dots$$

$$y = \dots\dots\dots$$

(Total for question 1 is 5 marks)

2 Solve the simultaneous equations

$$x^2 + y^2 = 17$$

$$y = x - 3$$

$$x = \dots\dots\dots$$

$$y = \dots\dots\dots$$

(Total for question 2 is 5 marks)

3 Solve the simultaneous equations

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

$$x - y = 2$$

$$x = \dots\dots\dots$$

$$y = \dots\dots\dots$$

(Total for question 3 is 5 marks)

4 Solve the simultaneous equations

$$x^2 + y^2 = 20$$

$$3x = 2 - y$$

$$x = \dots\dots\dots$$

$$y = \dots\dots\dots$$

(Total for question 4 is 5 marks)

5 Solve the simultaneous equations

$$x^2 + y^2 = 41$$

$$y = 2x - 3$$

$$x = \dots\dots\dots$$

$$y = \dots\dots\dots$$

(Total for question 5 is 5 marks)

- 6 Solve the simultaneous equations
Give your answers to 3 significant figures

$$x^2 + y^2 = 20$$

$$2x + y = 3$$

$x = \dots\dots\dots$

$y = \dots\dots\dots$

(Total for question 6 is 5 marks)

7 Solve the simultaneous equations
Give your answers to 3 significant figures

$$x^2 + y^2 = 27$$

$$2x - y = 3$$

$x = \dots\dots\dots$

$y = \dots\dots\dots$

(Total for question 7 is 5 marks)