

Name: \_\_\_\_\_

**ASM Tuition Academy**  
**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 you're 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 time.
- Try to answer every question.
- Check your answers if you have time at the end.

**Q1- Solve the simultaneous equations**

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

$$x = y + 1$$

$$x = \text{-----}$$

$$y = \text{-----}$$

**(Total for Question 1 is 5 marks)**

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**Q2- Solve the simultaneous equations**

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

$$x = y + 1$$

$$x = \text{-----}$$

$$y = \text{-----}$$

**(Total for Question 2 is 5 marks)**

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**Q3- Solve the simultaneous equations**

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

$$x - y = 2$$

$$x = \text{-----}$$

$$y = \text{-----}$$

**(Total for Question 3 is 5 marks)**

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**Q4- Solve the simultaneous equations**

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

$$x = 8 - 3y$$

$$x = \text{-----}$$

$$y = \text{-----}$$

**(Total for Question 4 is 5 marks)**

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**Q5- Solve the simultaneous equations**

$$x^2 + y^2 = 61$$

$$x = 7 - 2y$$

$$x = \text{-----}$$

$$y = \text{-----}$$

**(Total for Question 5 is 5 marks)**

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**Q6- Solve the simultaneous equations**

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

$$x - y = 3$$

$$x = \text{-----}$$

$$y = \text{-----}$$

**(Total for Question 6 is 5 marks)**

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**Q7- Solve the simultaneous equations**

$$x^2 + y^2 = 30$$

$$2x - y = 6$$

$$x = \text{-----}$$

$$y = \text{-----}$$

**(Total for Question 7 is 5 marks)**

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**Q8- Solve algebraically the simultaneous equations**

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

$$2x + 2y = 7$$

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**(Total for Question 8 is 5 marks)**

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**Q9- Solve algebraically the simultaneous equations**

$$x^2 + y^2 = 37$$

$$3x - 2y = 5$$

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**(Total for Question 9 is 5 marks)**

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