Factorising Quadratics ($a > 1$)

Please write clearly in block capitals

Forename:
Surname:

Materials

For this paper you must have:
• mathematical instruments

You **can** use a calculator.

Instructions

• Use black ink or black ball-point pen. Draw diagrams in pencil.
• Fill in the boxes at the top of this page.
• Answer all questions.
• You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
• Do all rough work in this book. Cross through any work you do not want to be marked.

Information

• The marks for questions are shown in brackets.
• You may ask for graph paper, tracing paper and more answer paper. These must be tagged securely to this answer book.

Advice

• In all calculations, show clearly how you work out your answer.

1   Factorise the following quadratics:

1(a)
$$2x^2 + 14x + 24$$

[2 marks]

Answer _____

1(b)
$$3x^2 + 13x + 14$$

[2 marks]

Answer _____

1(c)
$$3x^2 + 30x + 48$$

[2 marks]

Answer _____

1(d)
$$5x^2 + 39x + 28$$

[2 marks]

Answer _____

1(e)
$$5x^2 + 27x + 10$$

[2 marks]

Answer _____

Turn over for next question

10

2   Factorise the following quadratics:

2(a)
$$4x^2 + 20x + 16$$

[2 marks]

Answer _____

2(b)
$$6x^2 + 32x + 42$$

[2 marks]

Answer _____

2(c)
$$4x^2 + 18x + 8$$

[2 marks]

Answer _____

2(d)
$$8x^2 + 46x + 30$$

[2 marks]

Answer _____

2(e)
$$9x^2 + 24x + 16$$

[2 marks]

Answer _____

Turn over for next question

10

3   Factorise the following quadratics:

3(a)
$$2x^2 - 18x + 16$$

[2 marks]

Answer _____

3(b)
$$7x^2 - 8x + 1$$

[2 marks]

Answer _____

3(c)
$$6x^2 - 22x + 12$$

[2 marks]

Answer _____

3(d)
$$3x^2 - 20x + 12$$

[2 marks]

Answer _____

3(e)
$$8x^2 - 26x + 6$$

[2 marks]

Answer _____

Turn over for next question

10

Turn over ▶

4 Factorise the following quadratics:

4(a) $$2x^2 + 2x - 12$$

[2 marks]

Answer _____

4(b) $$3x^2 - 20x - 32$$

[2 marks]

Answer _____

4(c) $$3x^2 + 15x - 42$$

[2 marks]

Answer _____

4(d) $$5x^2 - 26x - 24$$

[2 marks]

Answer _____

4(e) $$7x^2 - 23x - 20$$

[2 marks]

Answer _____

Turn over for next question

10

Turn over ▶

5   Factorise the following quadratics:

5(a) $6x^2 - 26x + 24$

[2 marks]

Answer _____

5(b) $8x^2 - 56x + 48$

[2 marks]

Answer _____

5(c) $6x^2 + x - 7$

[2 marks]

Answer _____

6(a)   Factorise $x^2 - 64$

[1 mark]

Answer _____

6(b)   Factorise $x^2 - y^2$

[1 mark]

Answer _____

End of Questions

8

END