

Factorising Quadratics ($a > 1$)

Please write clearly in block capitals

Forename:

Surname:

Materials

For this paper you must have:

- mathematical instruments



You must **not** 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:

(Level 7)

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

2 Factorise the following quadratics:

(Level 7)

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

3 Factorise the following quadratics:

(Level 7)

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

4 Factorise the following quadratics:

(Level 7)

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

5 Factorise the following quadratics:

(Level 7)

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 $x^2 - 64$

(Level 7)

[1 marks]

Answer _____

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

[1 marks]

Answer _____

End of questions