

Collecting Like Terms

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 Write the following expressions in their simplest form:

(Level 3)

1(a)

$$a + 2a + 3a$$

[1 mark]

Answer _____

1(b)

$$3b + 4b + 5b + 3b$$

[1 mark]

Answer _____

1(c)

$$4c + 7c + 5c + 2c$$

[1 mark]

Answer _____

1(d)

$$6d + 4d + 3d + 6d$$

[1 mark]

Answer _____

1(e)

$$9i + 10i + 7i$$

[1 mark]

Answer _____

Turn over for next question

2 Write the following expressions in their simplest form: (Level 3)

2(a) $a - 2a + 3a$ [1 mark]

Answer _____

2(b) $3b + 4b + 5b - 3b$ [1 mark]

Answer _____

2(c) $4c + 7c - 5c + 2c$ [1 mark]

Answer _____

2(d) $6d - 4d + 3d + 6d$ [1 mark]

Answer _____

2(e) $9i + 10i - 7i$ [1 mark]

Answer _____

Turn over for next question

3 Write the following expressions in their simplest form: (Level 3)

3(a) $a + 5a - 3a + 4b + 3b$ [1 mark]

Answer _____

3(b) $5c + 6c + 4d + 3d$ [1 mark]

Answer _____

3(c) $7e - 5e + 4e - 5f + 8f + 2f$ [1 mark]

Answer _____

3(d) $6k + 8l - 4k - 2k + 10l$ [1 mark]

Answer _____

3(e) $9u - 7t + 2u - 11u + 7t$ [1 mark]

Answer _____

Turn over for next question

4 Write the following expressions in their simplest form:

(Level 3)

4(a) $6x + 3x - 2x + 10$

[1 mark]

Answer _____

4(b) $11x - 20x + 10 + 20$

[1 mark]

Answer _____

4(c) $-3x - 6x - 4 - 3x$

[1 mark]

Answer _____

4(d) $3x + 4y + 2x + 6y + 10$

[1 mark]

Answer _____

4(e) $-4x + 10y + 4x - 5y + 20 - 1$

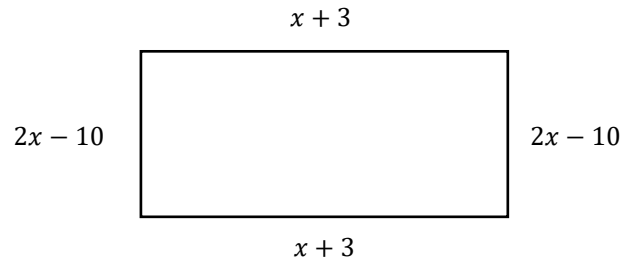
[1 mark]

Answer _____

Turn over for next question

- 5 For the following shapes, write an expression, in its simplest form, for the perimeter of the shape. (Level 4)

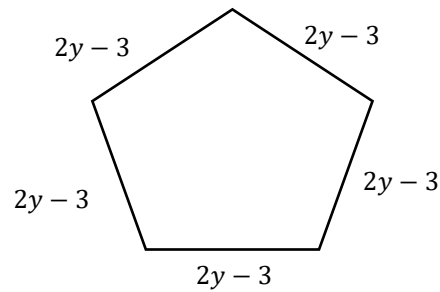
5(a)



[2 marks]

Answer _____

5(b)



[2 marks]

Answer _____

End of questions