

# Factorising and Simplifying

Revise this topic →



← Check your work

This booklet features original exam style questions designed by me. They do not feature in past papers but are good practice for your exams.

The content is designed to reflect the style of the **AQA Level 2 Certificate in Further Maths**. It may not be suitable for other courses.



Answer **all** questions in the spaces provided.

Do not write  
outside the  
box

**1 (a)** Factorise fully  $6p^2 + 15p^5$  **[2 marks]**

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Answer \_\_\_\_\_

**1 (b)** Factorise fully  $9m^4 + 36m^2$  **[2 marks]**

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Answer \_\_\_\_\_

**1 (c)** Factorise fully  $2a^4b - a^3b^3$  **[2 marks]**

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Answer \_\_\_\_\_

**1 (d)** Factorise fully  $9t^2 - 4$  **[2 marks]**

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Answer \_\_\_\_\_





Do not write  
outside the  
box

2 (a) Factorise fully  $4x^5 - 100x^3$

[3 marks]

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Answer \_\_\_\_\_

2 (b) Factorise fully  $3x^2 + 2xy - y^2$

[3 marks]

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Answer \_\_\_\_\_

2 (c) Factorise fully  $3(x + 4)^5 - (x + 4)^4$

[3 marks]

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Answer \_\_\_\_\_

Turn over ►





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3 Factorise fully  $x^4 - 8x^2 + 12$  [3 marks]

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Answer \_\_\_\_\_

4 Simplify fully  $\frac{6x - 18}{x^2 - 9}$  [3 marks]

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Answer \_\_\_\_\_

5 Simplify fully  $\frac{6x^4 + 3x^3}{4x^2 - 1}$  [3 marks]

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Answer \_\_\_\_\_





Do not write  
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6 Simplify fully  $\frac{6x^2 - 2xy}{4xy - 12x^2}$  [3 marks]

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Answer \_\_\_\_\_

7 Simplify fully  $\frac{x^4 - 4x^2}{x^5 - 2x^4}$  [3 marks]

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Answer \_\_\_\_\_

8 Simplify fully  $\frac{2x^4 - 2x^3y}{x^3 - xy^2}$  [4 marks]

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Answer \_\_\_\_\_

Turn over ►





Do not write  
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9 Simplify fully  $\frac{4(x-1)^3 + x(x-1)^2}{10x^2 - 18x + 8}$  [5 marks]

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Answer \_\_\_\_\_

10 Simplify fully  $\frac{3x^2 - 6x}{x^4 - 16} \div \frac{1}{x^2 + 4}$  [6 marks]

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Answer \_\_\_\_\_

