JRA Tutors
Private tuition and small online Study Pods

Simplifying Algebra

Grade 2 topic · Foundation and Higher · Edexcel and AQA

How to use this pack
20 questions that get harder as you go. Foundation students: aim for Questions 1–15 (27 marks) and have a go at the rest. Higher students: complete all 20. Show your working on the lines and write your final answer on the answer line, then mark yourself with the answers at the back. Diagrams are not drawn accurately. Total: 47 marks.

Warm-up

1 Simplify 2x + 6x. **[1 mark]**

Answer _____

2 Simplify 10p − 8p. **[1 mark]**

Answer _____

3 Simplify 5x + 8x. **[1 mark]**

Answer _____

4 Simplify 8p − 2p. **[1 mark]**

Answer _____

5 Simplify 6x + 2x. **[1 mark]**

Answer _____

Core

6 Simplify 2x + 2y + 6x − 4y. **[2 marks]**

Answer _____

7 Simplify 7x + 3y + 8x − 2y. **[2 marks]**

Answer _____

8 Simplify 5x + 3y + 8x − 2y. **[2 marks]**

Answer _____

9 Simplify 3x + 5y + 3x − 5y. **[2 marks]**

Answer _____

10 Simplify 9x + 2y + 2x − 3y. **[2 marks]**

Answer _____

Stretch

11 Expand 5(7x + 7). **[2 marks]**

Answer _____

12 Expand and simplify 4(x + 8) + 2(x − 2). **[3 marks]**

Answer _____

13 Expand $3(9x + 9)$. **[2 marks]**

Answer _____

14 Expand and simplify $5(x + 2) + 2(x - 9)$. **[3 marks]**

Answer _____

15 Expand $3(5x + 8)$. **[2 marks]**

Answer _____

Challenge

16 Simplify $(2x^2y^2) \times (4xy)$. **[4 marks]**

Answer _____

17 Expand and simplify $5(4x - 2) - 2(2x - 6)$. **[4 marks]**

Answer _____

18 Simplify $(5x^2y^2) \times (6x^2y^3)$. **[4 marks]**

Answer _____

19 Expand and simplify $6(5x - 1) - 3(3x - 1)$. **[4 marks]**

Answer _____

20 Simplify $(3x^3y) \times (5x^2y^3)$. **[4 marks]**

Answer _____