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Expanding and Factorising Quadratics

Grade 5 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 (48 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: 70 marks.

Warm-up

1 Expand and simplify $(x - 6)(x - 8)$. **[3 marks]**

Answer _____

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

Answer _____

3 Expand and simplify $(x + 1)(x + 4)$. **[3 marks]**

Answer _____

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

Answer _____

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

Answer _____

Core

6 Factorise $x^2 - 5x - 6$. **[3 marks]**

Answer _____

7 Factorise $x^2 - 2x - 35$. **[3 marks]**

Answer _____

8 Factorise $x^2 - 4x - 5$. **[3 marks]**

Answer _____

9 Factorise $x^2 + 3x - 10$. **[3 marks]**

Answer _____

10 Factorise $x^2 - 6x - 16$. **[3 marks]**

Answer _____

Stretch

11 Expand and simplify $(4x - 2)(3x + 2)$. **[4 marks]**

Answer _____

12 Factorise $3x^2 + 10x + 8$. **[4 marks]**

Answer _____

13 Expand and simplify $(x + 1)^2$. **[3 marks]**

Answer _____

14 Factorise $x^2 - 64$. **[3 marks]**

Answer _____

15 Expand and simplify $(x + 5)(x - 5) + 1x$. **[4 marks]**

Answer _____

Challenge

16 Factorise $2x^2 + 5x + 2$. **[4 marks]**

Answer _____

17 Factorise $3x^2 - 7x - 6$. **[5 marks]**

Answer _____

18 Factorise $4x^2 - 25$. **[3 marks]**

Answer _____

19 Solve $2x^2 + 5x + 2 = 0$. **[5 marks]**

Answer _____

20 Expand and simplify $(2x - 3)^2 - (x + 1)(x - 4)$. **[5 marks]**

Answer _____