

Factorising quadratics ($x^2 + bx + c$)

Grade 5 | Foundation and Higher | 14 questions, 43 marks

GCSE Maths topic practice



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Name: _____ **Date:** _____ **Score:** _____ / 43

1 Factorise $x^2 - 49$ (1 mark)

Answer _____

2 Factorise $x^2 + 10x + 21$ (2 marks)

Answer _____

3 Factorise $x^2 - 9x + 20$ (2 marks)

Answer _____

4 Factorise $x^2 + 9x + 14$ (2 marks)

Answer _____

5 Factorise $x^2 + 5x - 24$ (2 marks)

Answer _____

6 a. Factorise $x^2 - 3x - 40$
b. Expand and simplify your answer to part a to check it. (3 marks)

Answer _____

7

Simplify fully $\frac{x^2 - 16}{x + 4}$

(3 marks)

Answer _____

8

a. Expand and simplify $(x + 9)(x - 2)$ b. Factorise $x^2 - 3x - 28$

(4 marks)

Answer _____

9

By writing $73^2 - 27^2$ as a product of two factors, work out its value without a calculator.

(3 marks)

Answer _____

10

Factorise fully $3x^2 - 48$

(3 marks)

Answer _____

11

a. Expand and simplify $(x + 5)(x - 2) + 2(x + 2)$

b. Factorise your answer to part a.

(4 marks)

Answer _____

12

a. Expand and simplify $(y + 7)(y - 7)$ b. Factorise $x^2 + x - 30$

(4 marks)

Answer _____

13

Amy is asked to factorise $x^2 - 4x - 12$.She writes $x^2 - 4x - 12 = (x - 6)(x - 2)$

a. Explain why Amy's answer is wrong, and write down the correct factorisation.

b. Factorise fully $2x^2 + 6x - 20$

(5 marks)

Answer _____

14

a. Solve $5 - 2x \geq 1$ b. Factorise $x^2 + 5x + 6$

(5 marks)

Answer _____

End of questions | Total 43 marks