Name:

Exam Style Questions

Factorising Quadratics

$x^2 + bx + c$

Corbettmaths

Equipment needed: Calculator, pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

www.corbettmaths.com/contents

Videos 118, 120

Answers and Video Solutions

1. Factorise $x^2 + x - 6$

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(2)

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2. Factorise $x^2 + 5x + 6$

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(2)

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3. Factorise $x^2 + 9x + 20$

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(2)

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4. Factorise $x^2 + 10x + 9$

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(2)

5. Factorise $x^2 - 7x + 12$

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(2)

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6. Factorise $x^2 - 2x - 24$

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(2)

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7. Factorise $x^2 - 6x - 27$

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(2)

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8. Factorise $x^2 - 36$

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(2)

9. Factorise $x^2 + 5x - 24$

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(2)

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10. Factorise $x^2 + 8x + 16$

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(2)

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11. Factorise $x^2 - 121$

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(2)

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12. Factorise $x^2 + 7x - 78$

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(2)

13. Factorise $x^2 + 4x - 12$

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(2)

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14. Factorise $x^2 - 25$

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(2)

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15. Factorise $y^2 - 9y + 14$

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(2)

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16. Factorise $9 - w^2$

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(2)

17. Factorise $49 - y^2$

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(2)

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18. Factorise $x^2 - 38x + 72$

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(2)

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19. Factorise $x^2 + 14x - 51$

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(2)

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20. Factorise $y^2 + 32y + 240$

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(2)

21. Factorise $y^2 - 12y - 64$

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(2)

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22. Freddy has been asked to factorise $x^2 - 11x + 30$

His answer is $(x + 5)(x + 6)$

Explain his mistake.

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(2)

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23. A quadratic expression, $x^2 + ax + 24$, can be factorised.

a is a positive integer.

How many possible values are there for a?

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(3)

24. Factorise $x^2 - x - 72$

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(2)

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25. Factorise fully $x^2 - 18x - 88$

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(2)

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26. Factorise $y^2 - 13y + 36$

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(2)

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27. Factorise $x^2 - 16x - 17$

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(2)

28. A quadratic expression, $x^2 + ax + 15$, can be factorised.

Find all possible values for a

a can be positive or negative.

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(5)