Name:

Level 2 Further Maths

Solving Quadratics by Factorising

Corbettmaths

Ensure you have: Pencil or pen

Guidance

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

Revision for this topic

www.corbettmaths.com/more/further-maths/

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1. Solve $2x^2 + 5x + 2 = 0$

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(2)

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2. Solve $3x^2 - x - 2 = 0$

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(2)

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3. Solve $2x^2 - x - 6 = 0$

.....

(2)

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4. Solve $7x^2 - 22x + 16 = 0$

.....

(2)

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5. Solve $2x^2 + 15x - 38 = 0$

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(2)

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6. Solve $4x^2 + 12x - 7 = 0$

.....

(3)

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7. Solve $6x^2 + 31x + 5 = 0$

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(3)

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8. Solve $4x^2 - 4x - 35 = 0$

.....

(3)

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9. Solve $12x^2 + 25x + 12 = 0$

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(3)

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10. Solve $16x^2 - 30x + 9 = 0$

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(3)

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11. Solve $100x^2 - 169 = 0$

.....

(2)

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12. Solve $6y^2 + 4 = 13 - 3y + 4y^2$

.....

(3)

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13. Solve $3(x+1) = 3x^2 + x + 2$

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(3)

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14. Solve $\dfrac{(4x+3)(x+2)}{x+1} = 3$

.....

(2)

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15. Solve $\frac{2}{x^2} + \frac{13}{x} + 6 = 0$

.....

(4)

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16. Solve $\frac{2x - 1}{4} = \frac{1}{2x - 1}$

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(4)

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17. Solve $\frac{3}{x^2} - \frac{5}{x} - 12 = 0$

.....

(4)

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18. A rectangular field has a width of x metres.
The length of the field is 25 metres greater than twice the width of the field.
The area of the field is 450m²

Work out the length of the field.

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(4)

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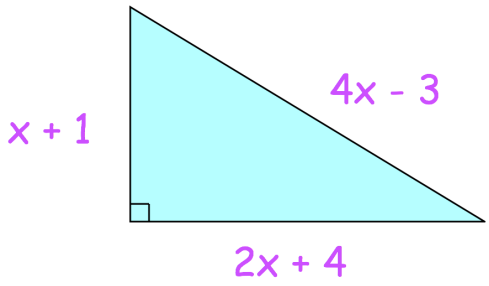
19. Shown is a right angled triangle.



(a) Show that $11x^2 - 42x - 8 = 0$

.....

(3)

(b) Find the value of x

.....

(2)

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20. Solve the equation $7x - 22x^{\frac{1}{2}} - 16 = 0$

.....

(4)

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21. Solve the equation $4x^4 - 11x^2 + 6 = 0$

.....

(4)

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22. Solve $8^{x^2+4x+3} = 16^{x^2+5x+6}$

.....

(6)

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