QUADRATICS OF THE FORM $ax^2 + bc + c$ WHERE $a \neq 1$ ▸ EXAMPLES

Please watch at least the first example before attempting these. The method used by be unfamiliar to you.

1E. Factorise $4x^2 - 16x + 15$

1P. Factorise $4x^2 + 13x - 12$

2E. Factorise $8x^2 - 10x - 3$

2P. Factorise $12x^2 + 16x - 3$

3E. Factorise $4x^2 - 2x - 12$

3P. Factorise $9x^2 + 21x - 18$

DIFFERENCE OF TWO SQUARES ▸ KEY FACTS

DIFFERENCE OF TWO SQUARES

$$a^2 - b^2 = (a+b)(a-b)$$

TOP TIP

Use this method when there is an x^2 term and a constant, but no x term (e.g. $x^2 - 16$)

DIFFERENCE OF TWO SQUARES ▸ EXAMPLES

If you are confident with this method, feel free to attempt the questions before using the video to check answers.

Factorise the following:

1. $x^2 - 1 =$

2. $x^2 - 9 =$

3. $16 - x^2 =$

4. $5 - x^2 =$

5. $4x^2 - 1 =$

6. $25x^2 - 16 =$

7. $\dfrac{1}{100}x^2 - 9 =$

8. $\dfrac{9}{16} - \dfrac{4}{25}x^2 =$

If you are confident with this method, feel free to attempt the questions before using the video to check answers.

1. $10x^2 + 5x = 0$

2. $x^2 = 3x$

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

4. $4 + 3x = x^2$

5. $x^2 - 9 = 0$

DRFROSTMATHS QUESTIONS:

TOP TIP: Although tasks can be completed on mobile devices, using a keyboard is much faster and more reliable.

This task is non-calculator.

1. Factorise $2x^2 - 3x - 14$

2. Factorise $x^2 - 25$.

3. Solve $x^2 - 11x + 28 = 0$

4. Factorise $36 - x^2$.

5. Factorise $4x^2 + 16x + 7$

6. Factorise $9x^2 - 4$.

7. Solve $3x^2 + 11x - 20 = 0$

8. Factorise $4x^2 - 7x - 2$

9. Factorise $25x^2 - 81$.

10. Solve: $(1 + 5x)(x - 3) = 0$

11. Factorise $6x^2 - 23x - 4$

12. Factorise fully $3x^2 - 12$