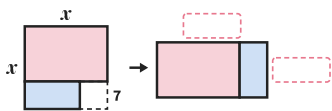


The Difference of Two Squares

1

Factorise $x^2 - 49$

turn the blue piece and stand it on the right



square root each term

$\sqrt{\text{of } x^2}$ is x $\sqrt{\text{of } 49}$ is 7

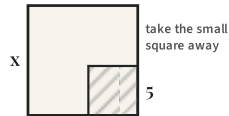
one bracket with +, one with -

$(\quad + \quad)(\quad - \quad)$

Answer _____

2

Factorise $x^2 - 25$



square root each term

$\sqrt{\text{of } x^2}$ is x $\sqrt{\text{of } 25}$ is 5

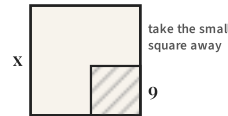
one bracket with +, one with -

$(\quad + \quad)(\quad - \quad)$

Answer _____

3

Factorise $x^2 - 81$



square root each term

$\sqrt{\text{of } x^2}$ is x $\sqrt{\text{of } 81}$ is 9

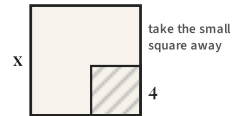
one bracket with +, one with -

$(\quad + \quad)(\quad - \quad)$

Answer _____

4

Factorise $x^2 - 16$



square root each term

$\sqrt{\text{of } x^2}$ is x $\sqrt{\text{of } 16}$ is 4

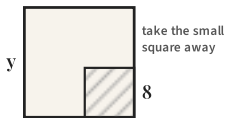
one bracket with +, one with -

$(\quad + \quad)(\quad - \quad)$

Answer _____

5

Factorise $y^2 - 64$



square root each term

$\sqrt{\text{of } y^2}$ is y $\sqrt{\text{of } 64}$ is 8

one bracket with +, one with -

$(\quad + \quad)(\quad - \quad)$

Answer _____

6

Factorise $25 - x^2$

$\sqrt{\text{of } 25}$ is 5 $\sqrt{\text{of } x^2}$ is x

$(\quad + \quad)(\quad - \quad)$

Answer _____

7

Factorise $4x^2 - 9$

Answer _____

8

Work out $51^2 - 49^2$ without a calculator.

Answer _____

The Difference of Two Squares *further practice*

9

Factorise $9x^2 - 16$

Answer _____

10

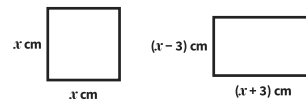
Factorise $a^2 - 64b^2$

Answer _____

11

A square has sides of x cm.

A rectangle is $(x + 3)$ cm long and $(x - 3)$ cm wide. Which has the bigger area, and by how much?



Answer _____

12

Find the missing terms.

$4x^2 - \square = (2x + 5)(\square - 5)$

Answer _____

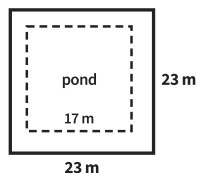
13

Factorise fully $3x^2 - 75$

Answer _____

14

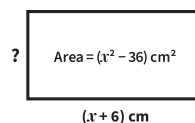
A square garden has sides of 23 m. It has a square pond with sides of 17 m. Without a calculator, work out the area of the garden that is not pond.



Answer _____

15

Find an expression for the width of this rectangle.



Answer _____

16

Nina says $x^2 + 25 = (x + 5)(x - 5)$. Is Nina right? Explain.

Answer _____