GCSE FOUNDATION · REVISION MAT 1

Factorising

1 Factorise

(a) $6x + 15$

(b) $x^2 + 7x$

2 Factorise fully $12y^2 - 8y$

3 Ben factorises $8x + 12$ and writes $2(4x + 6)$

Explain why this is not fully factorised.

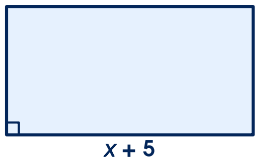
4 n is a whole number.

Show that $5n + 20$ is always a multiple of 5.

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

6 A rectangle has area $x^2 + 9x + 20$ cm^2.

Its length is $(x + 5)$ cm.



(a) Find an expression for the width.

(b) Find an expression for the perimeter.

ANSWERS · REVISION MAT 1

Factorising

1 (a) **$3(2x + 5)$**

(b) **$x(x + 7)$**

2 HCF = $4y$

$4y(3y - 2)$

3 $4x + 6$ still has a common factor.

The HCF of 8 and 12 is 4: **$4(2x + 3)$**

4 $5n + 20 = 5(n + 4)$

This is 5 × a whole number, so it is **a multiple of 5** ✓

5 Find two numbers that multiply to 12 and add to 7: 3 and 4

$(x + 3)(x + 4)$

6 (a) $x^2 + 9x + 20 = (x + 5)(x + 4)$, width **$x + 4$**

(b) $2(x + 5) + 2(x + 4) =$ **$4x + 18$**

Mr&Mrs MATHS