GCSE FOUNDATION · REVISION MAT 4

Factorising

1 Factorise

(a) $12x + 18$

(b) $x^2 - 3x$

2 Factorise fully $14y^2 - 21y$

3 Ella factorises $16x + 40$ and writes $4(4x + 10)$

Explain why this is not fully factorised.

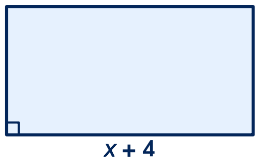
4 n is a whole number.

Show that $6n + 18$ is always a multiple of 6.

5 Factorise $x^2 - x - 12$

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

Its length is $(x + 4)$ cm.



(a) Find an expression for the width.

(b) Find an expression for the perimeter.

ANSWERS · REVISION MAT 4

Factorising

1 (a) **$6(2x + 3)$**

(b) **$x(x - 3)$**

2 HCF = $7y$

$7y(2y - 3)$

3 $4x + 10$ still has a common factor.

The HCF of 16 and 40 is 8: **$8(2x + 5)$**

4 $6n + 18 = 6(n + 3)$

This is 6 × a whole number, so it is **a multiple of 6** ✓

5 Find two numbers that multiply to -12 and add to -1: -4 and 3

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

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

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