GCSE FOUNDATION · REVISION MAT 4

Expanding brackets

1 Expand

(a) $2(3x + 7)$

(b) $x(x - 6)$

2 Expand and simplify

$6(x - 1) + 2(x + 3)$

3 Jem says,

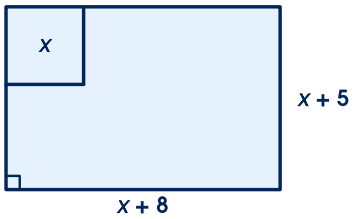
"$-4(x - 6) = -4x - 24$"

Explain the mistake Jem has made.

4 Show that

$(x + 5)(x + 3) \equiv x^2 + 8x + 15$

5 A square of side x cm is cut from a rectangle.



Show that the area left is $13x + 40$ cm^2

6 A square has side $(x + 5)$ cm.

A rectangle measures $(x + 7)$ cm by $(x + 3)$ cm.

Show that the area of the square is always 4 cm^2 more than the area of the rectangle.

1 (a) $6x + 14$

(b) $x^2 - 6x$

2 $6x - 6 + 2x + 6$

$= 8x$

3 A negative times a negative is positive: $-4 \times -6 = 24$

$-4x + 24$

ANSWERS · REVISION MAT 4

Expanding brackets

4 $x^2 + 3x + 5x + 15$

$= x^2 + 8x + 15$ ✓

5 $(x + 8)(x + 5) - x^2$

$= x^2 + 13x + 40 - x^2$

$= 13x + 40$ ✓

6 Square: $x^2 + 10x + 25$

Rectangle: $x^2 + 10x + 21$

Difference = 4 cm^2 ✓

Mr&Mrs MATHS