

Expanding Double Brackets

For AQA GCSE Mathematics (8300) • Foundation tier

Name _____

Total marks: **32**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

1 Multiply out and simplify $(x + 3)(x + 5)$

[2 marks]

Answer _____

2 Multiply out and simplify $(x + 4)(x - 2)$

[2 marks]

Answer _____

3 Multiply out and simplify $(x - 6)(x - 1)$

[2 marks]

Answer _____

4 Circle the expression that is equivalent to $(x - 3)^2$

[1 mark]

$$x^2 - 9$$

$$x^2 + 9$$

$$x^2 - 6x + 9$$

$$x^2 - 6x - 9$$

5 Multiply out and simplify $(x + 5)^2$

[2 marks]

Answer _____

6 Amy says,

$$'(x + 4)^2 = x^2 + 16'$$

Is she correct? Tick a box.

Give a reason for your answer.

[2 marks]

☐ Yes

☐ No

- 7 Here is a grid for multiplying out $(x + 7)(x + 2)$

×	x	$+7$
x		
$+2$		

Complete the grid.

Use it to multiply out and simplify $(x + 7)(x + 2)$

[2 marks]

Answer _____

- 8 Multiply out and simplify $(2x + 3)(x + 4)$

[2 marks]

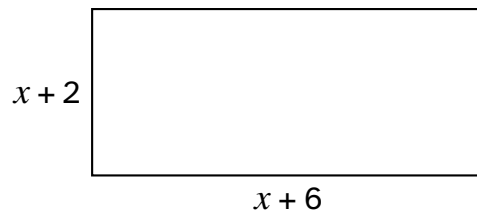
Answer _____

- 9 Multiply out and simplify $(3x - 2)(2x + 5)$

[3 marks]

Answer _____

- 10** Here is a rectangle.
All lengths are in centimetres.



Not drawn accurately

Show that the area of the rectangle, in cm^2 , is $x^2 + 8x + 12$

[2 marks]

- 11** a and b are numbers.

$$(x + a)(x + 3) \equiv x^2 + 7x + b$$

Work out the values of a and b .

[2 marks]

$a =$ _____ $b =$ _____

12 Multiply out and simplify $(x + 5)(x - 5)$

[2 marks]

Answer _____

13 Tick **one** box for each statement.

[2 marks]

$$(x + 2)(x + 3) = x^2 + 5x + 6$$

$$(x - 2)(x + 3) = x^2 + x - 6$$

$$(x - 4)^2 = x^2 - 16$$

$$(2x + 1)(x + 1) = 2x^2 + 2x + 1$$

True

☐☐☐☐

False

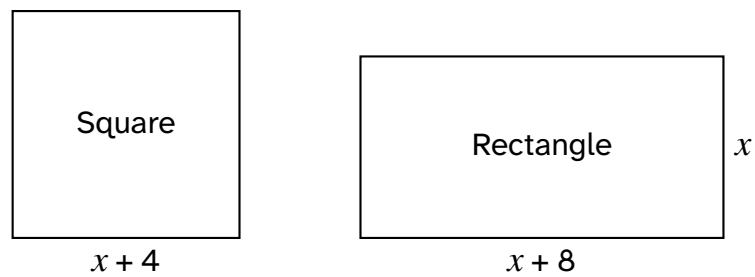
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14 Expand and simplify $(x + 2)(x + 5) - (x + 1)(x + 3)$

[3 marks]

Answer _____

- 15** Here are a square and a rectangle.
All lengths are in centimetres.



Not drawn accurately

Show that the area of the square is 16 cm^2 more than the area of the rectangle.

[3 marks]