

# EXPANDING BINOMIALS

Answer all of these questions. Remember to show your working out in all questions.

## MAIN QUESTIONS

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1.

$$(x + 2)(x + 3)$$

3.

$$(x + 5)(x + 2)$$

5.

$$(x + 6)(x + 4)$$

7.

$$(x + 10)(x + 11)$$

9.

$$(x - 4)(x - 1)$$

11.

$$(x - 3)(x - 7)$$

13.

$$(x - 8)(x - 9)$$

15.

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

17.

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

19.

$$(x + 6)(x - 4)$$

21.

$$(x + 10)(x - 11)$$

2.

$$(x + 4)(x + 1)$$

4.

$$(x + 3)(x + 7)$$

6.

$$(x + 8)(x + 9)$$

8.

$$(x - 2)(x - 3)$$

10.

$$(x - 5)(x - 2)$$

12.

$$(x - 6)(x - 4)$$

14.

$$(x - 10)(x - 11)$$

16.

$$(x + 4)(x - 1)$$

18.

$$(x + 3)(x - 7)$$

20.

$$(x + 8)(x - 9)$$

22.

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

23.

$$(x - 4)(x + 1)$$

25.

$$(x - 3)(x + 7)$$

27.

$$(x - 8)(x + 9)$$

29.

$$(x + 12)(x - 13)$$

31.

$$(x + 16)(x - 17)$$

33.

$$(x + 20)(x - 21)$$

35.

$$(x + 24)(x - 25)$$

24.

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

26.

$$(x - 6)(x + 4)$$

28.

$$(x - 10)(x + 11)$$

30.

$$(x - 14)(x + 15)$$

32.

$$(x - 18)(x + 19)$$

34.

$$(x - 22)(x + 23)$$

## MASTER QUESTIONS



M1.

A rectangular garden has length  $(x + 5)$  metres and width  $(x + 3)$  metres. Find the area in expanded form.

M2.

The area of a square is  $(x - 4)(x - 4)$ . Expand this expression.

M3.

A room's length is  $(x + 7)$  metres and width is  $(x - 2)$  metres. Calculate the area in expanded form.

M4.

The product of two consecutive numbers can be written as  $(x)(x + 1)$ . Expand this binomial expression.

M5.

A picture frame has outer dimensions  $(x + 10)$  cm by  $(x + 8)$  cm. Find the area of the frame's outer surface in expanded form.