Expanding double brackets

1 collect the like terms

Expand and simplify $(x + 6)(x + 2)$

×	x	+2
x	x^2	
+6		

Answer _____

2

Expand and simplify $(x + 7)(x - 3)$

×	x	−3
x		
+7		

Answer _____

3

Expand and simplify $(x - 2)(x - 9)$

×		

Answer _____

4 *Notice the change!*

Expand and simplify $(2x + 5)(x + 3)$

×		

Answer _____

5 write it as two brackets first

Expand and simplify $(x + 9)^2$

×		

Answer _____

6

Expand and simplify $(3x - 4)(x + 2)$

×		

Answer _____

7

Ama says $(x + 7)^2 = x^2 + 49$. Put $x = 1$ into both sides to show she is wrong.

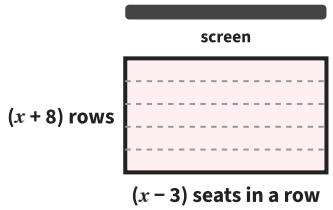
Then expand $(x + 7)^2$ correctly.

Answer _____

8

A cinema has $(x + 8)$ rows of seats, with $(x - 3)$ seats in each row.

Write an expression for the number of seats. Expand and simplify.



Answer _____

Expanding double brackets *further practice*

9

Expand and simplify $(x - 8)(x + 5)$

Answer _____

10

Expand and simplify $(x - 6)^2$

Answer _____

11

Expand and simplify $(2x - 1)(3x + 4)$

Answer _____

12

Lena expands $(x + 2)(x - 6)$ and gets $x^2 - 4x - 12$. Put $x = 3$ into both to check her answer.

Is she right? _____

13

Fill in the two gaps.

$(x + 3)(x + \square) = x^2 + \square x + 15$

Gaps _____

14

Expand and simplify

$(x + 4)(x + 1) + (x - 2)(x + 3)$

Answer _____

15

A square lawn has sides of x m.
It is made 5 m longer and 5 m narrower, so it is now a rectangle.
Expand $(x + 5)(x - 5)$ to find its new area. Has the area gone up or down?

Answer _____

16

n is a whole number.
Expand and simplify $(n + 1)^2 - n^2$.
Use your answer to explain why it is always an odd number.

Answer _____