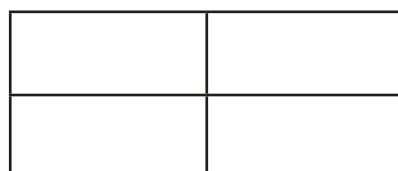


Expand a pair of binomials

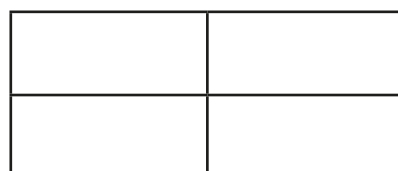
H

1 Use a grid method of multiplication to work out the calculations.

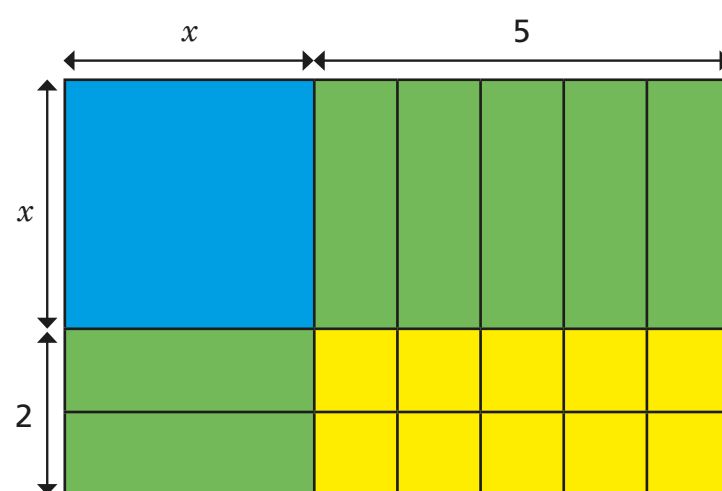
a) 41×23



b) 56×78



2 Teddy is using algebra tiles to expand $(x + 5)(x + 2)$.



Use the algebra tiles to complete the expansion.

$(x + 5)(x + 2) \equiv$ _____

3 Use algebra tiles to expand and simplify the expressions.

a) $(x + 2)(x + 3) \equiv$ _____

b) $(x + 1)(x + 4) \equiv$ _____

c) $(2x + 3)(x + 1) \equiv$ _____

d) $(2 + x)(x + 3) \equiv$ _____

4 Expand and simplify the expressions.

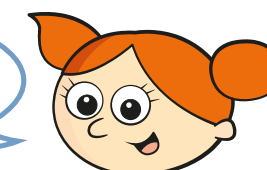
a) $(x + 1)(x + 3) \equiv$ _____

b) $(k + 1)(k + 8) \equiv$ _____

c) $(2b + 4)(b + 6) \equiv$ _____

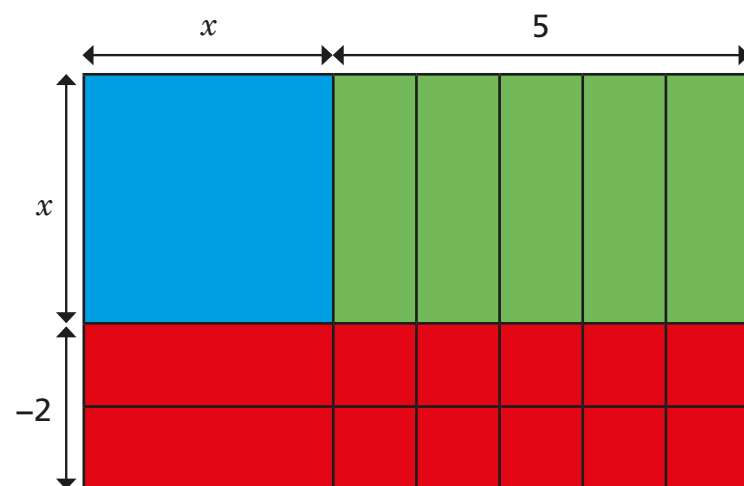
5

$(x + 3)^2 \equiv x^2 + 9$



Show that Alex is incorrect.

- 6 Teddy uses algebra tiles to expand $(x + 5)(x - 2)$.



Use algebra tiles to complete the expansions.

a) $(x + 5)(x - 2) \equiv$ _____

b) $(x - 5)(x + 2) \equiv$ _____

- 7 Expand and simplify the expressions.

a) $(p + 6)(p - 3) \equiv$ _____

b) $(t - 7)(t + 4) \equiv$ _____

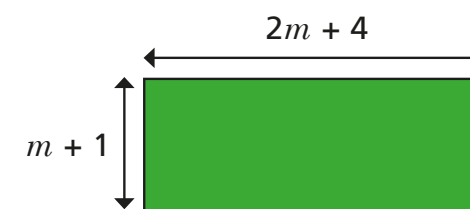
c) $(u - 4)(u - 2) \equiv$ _____

d) $(2x + 5)(x - 2) \equiv$ _____

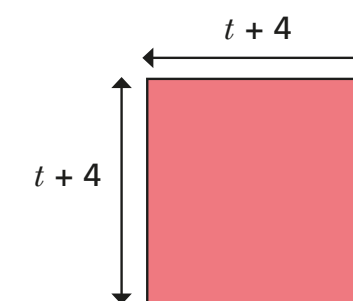


- 8 Write expressions for the areas of the shapes.

a)



b)



- 9 Expand each expression.

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

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

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

$(5 + a)(5 - a)$

Discuss with a partner what you notice about the answers.

- 10 Expand and simplify the expressions.

a) $(x + a)(x + a) \equiv$ _____

b) $(x + a)(x + b) \equiv$ _____

c) $(x + a)(x - b) \equiv$ _____

d) $(x + a)(x - a) \equiv$ _____

