

Algebra reasoning — Squaring a binomial

Name: _____

Date: _____

Read each line of working and choose the answer that is correct.

1 Noor says $(x + 7)^2 - 49$ comes to $x^2 + 14x$. Which is correct?

$x^2 + 14x$

x^2

$x^2 + 7x$

$x^2 + 14x + 49$

Why? nothing went wrong — the line as written is already correct.

2 Sam says $(x + 3)^2 - 9$ comes to $x^2 + 6x$. Which is correct?

$x^2 + 6x$

$x^2 + 6x + 9$

$x^2 + 3x$

x^2

Why?

3 Noor wrote $(x + 4)^2 - 16 = 2x - 8$. What should it be?

$x^2 + 8x$

$x^2 + 8x + 16$

$x^2 + 4x$

$2x - 8$

Why?

4 Check this line: $(x + 8)^2 - 64 = x^2 + 8x$. Which is correct?

x^2

$x^2 + 16x + 64$

$x^2 + 8x$

$x^2 + 16x$

Why?



Algebra reasoning · Squaring a binomial — Answer key

1. $(x + 7)^2 - 49 = x^2 + 14x$,
which is what was written
— this line is correct

2. $(x + 3)^2 - 9 = x^2 + 6x$,
which is what was written
— this line is correct

3. $(x + 4)^2 - 16 = x^2 + 8x$,
not $2x - 8$ (the bracket was
doubled instead of
squared)

4. $(x + 8)^2 - 64 = x^2 + 16x$,
not $x^2 + 8x$ (the middle
term was not doubled
when the bracket was
squared)