

Mathematics

Quadratic Contexts

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Try this

Compare these two situations.

What's the same and what's different?

I think of an integer. I multiply it by the next consecutive integer.

A rectangle has length 1 cm longer than its width. I find the area of the rectangle



I'm going to specialise by creating some examples for each one



Independent task

1. Annabel is x years old.
Her friend Rosie is 2 years older than Annabel.
I find the product of their ages.
Which expressions match this situation?

2. A rectangular garden is 2m shorter than it is wide.
I find the area of the field.
Which expressions match this situation?

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



Explore

A square is cut out of a 9 cm x 4 cm rectangle.

- Form an expression to describe the area of the resulting shape.
- Are there different ways to find this expression?
- Graph it
- What is the maximum and minimum area?

