

## Why use this resource?

Students often assume that all quadratic graphs are symmetrical because they all look like they have a line of symmetry. This resource gives students an opportunity to convince themselves that this is, indeed, the case.

This resource focuses on a specific quadratic but the ideas can be generalised.

## Key question

Are all quadratic graphs symmetrical? How can you convince someone of this?

## Possible support

How would you define symmetrical in this context?

If the graph has a line of symmetry, what is it? How can we use this idea?

Does the graph look similar to any other graph you know? How can we use this idea?

## Possible extension

Can you generalise this result to show that every quadratic graph has a line of symmetry?