

Why use this resource?

This investigation encourages students to really look at curves and to informally identify certain key features before introducing the formal language of maxima, minima, etc. Students should be encouraged to think about what a curve looks like, thinking primarily about sketches rather than algebraic definitions.

Preparation

A carefully chosen selection of 'curves', provided as printable cards, can be used to promote and broaden discussion in this investigation. Access to graphing software could be useful.

Key question

Is this a function?

Possible support

As students progress through the investigation they might be encouraged to assign equations to the curves they have considered. At this point, allowing students to make use of graphing software can allow them to make deeper connections between the appearance of the graph and the features of its equation.