Picture this!

Teacher notes

Why use this resource?

This presents students with opportunities to investigate and to explore. The interactivity shows how the computer takes two numbers and produces a picture.

Possible approach

A good way to start is to ask students whether given two numbers they can produce the same picture as the computer, and whether given a picture they can identify which two numbers led to it. This enables everyone to reach the point of understanding how the picture was created (essentially Euclid's algorithm, but presented visually). There are then all sorts of things that students might be interested in exploring. One particularly fruitful line of enquiry would be to ask how the initial two numbers are related to the side length of the smallest square. Students can play around and make a conjecture, and then the challenge is to prove that conjecture (essentially to justify that Euclid's algorithm finds the highest common factor of two numbers).