

What's possible?

Teacher notes

Why use this resource?

This is a simple idea that can be investigated in many ways. Students should recognise the appearance of the difference of two squares and can either make their own conjectures or investigate the questions that are given. Working through the suggested questions should find students needing to use the factorised form, and making more progress if they generalise their ideas.

Possible approach

Students should be given some time to look at the two calculations to see what they notice and think about any questions they have. Different groups might choose to explore different ideas which can then be shared with the class. The emphasis should be on proving any conjectures they have made.

Key questions

- Can you extend your ideas to numbers above 20?
- What do you notice about the numbers that you cannot make?