

Constant consistency

Teacher notes

Why use this resource?

This resource allows pupils to practise various integration techniques and then consider how the constant of integration may affect the results.

Possible approach

Pose the problem to the students, asking them to come up with as many ways as possible to find the integral. Don't reveal the toggled suggestions unless students need a prompt. Depending on their responses, students can then compare their results and attempt to explain why the different methods have provided apparently different answers.

Key questions

- How many different ways can we approach this problem?
- Are all the answers the same or are they different?
- What about the constant of integration?
- Could you sketch a graph of those functions?

Possible extension

Are there any other integrals which also have this property?