

# Stage 11 Calculating

KEYWORDS

## WHAT DO WE ALREADY *know?*

- How to simplify and calculate with surds.
- Use a scientific calculator to calculate with powers and roots.

## THE BIG PICTURE

- Solve problems involving simplifying surds.
- Expand brackets containing surds.
- Rationalise the denominator in a surd expression.

- Power, root
- Index, Indices
- Standard form
- Surd-1550s, "irrational" (of numbers), from Latin surdus "deaf, unheard"
- Simplify
- Rationalise
- Denominator-1540s, in mathematics, "that term of a fraction which indicates the value of the fractional unit" (commonly the number written below the numerator or dividend), from Medieval Latin denominator

## Calculating - Targets

Before Topic    After Topic    Teacher Mark

Simplify Surds

Solve problems involving simplifying surds

Expand double brackets involving surds

Rationalise the denominator of a simple surd expression.

Rationalise the denominator of a more complex surd expression

Before Topic	After Topic	Teacher Mark