

# Stage 10 Calculating

## WHAT DO WE ALREADY *know?*

- How to calculate with positive and negative indices.
- Use the multiplication and division laws for indices.
- Round to decimal places and significant figures.
- Identify upper and lower bounds.



- Confidently use indices which may be negative and/or fractional.
- Estimate roots and use surds accurately.
- Use upper and lower bounds appropriately when problem solving.

- Power, root
- Index, Indices
- Standard form
- Inequality
- Truncate say *trunk ate*
- Round-mid-14c., "entire, full, complete, brought to completion,"
- Minimum, Maximum
- Interval
- Decimal place
- Significant figure
- Surd-1550s, "irrational" (of numbers), from Latin surdus
- Limit

### Calculating - Targets

Before Topic	After Topic	Teacher Mark
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Estimate squares and cubes of numbers up to 100		
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Estimate square roots of numbers up to 150 and cube roots of numbers up to 20		
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Understand what a surd is and why it is used.		
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Calculate exactly with surds (including surd rules)		
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Be able to calculate the upper and lower bounds in a given situation.		
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Choose the appropriate upper and/or lower limits of a number when problems solving with bounds.		
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