

# fx-CG100 Calculator Skills

## Further Maths: Core Pure

Find the skill, tap Watch, and follow along on your own calculator.

### Before you start

Look for the UK symbol at the top of the screen. If it isn't there, set UK mode first.

[▶ Watch](#)

Casio UK

## Complex numbers

### 1 Complex number calculations

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### 2 Powers and modulus-argument form

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**Tip:** set the angle unit to radians first (**SETTINGS** → Angle), so arguments come out in radians.

### 3 Roots of cubic and quartic equations

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## Matrices

### 4 Adding, subtracting and multiplying matrices

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### 5 Determinants of $2 \times 2$ and $3 \times 3$ matrices

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### 6 Inverse matrices

[▶ Watch](#)

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### 7 Three equations in three unknowns

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## Further algebra and functions

### 8 Sums of series ( $\Sigma$ )

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## Further calculus

### 9 Checking definite integrals, including volumes of revolution and mean values

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**Tip:** for a volume about the  $x$ -axis, integrate  $\pi y^2$  between the limits. For a mean value, divide the integral by  $(b - a)$ .

## Further vectors

### 10 Scalar products and angles between vectors

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### 11 Lines and planes: where they meet

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## Polar coordinates

### 12 Sketching polar curves

▶ Watch

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**Tip:** if the curve looks jagged, make the  $\theta$  step smaller in **TOOLS** → View Window (T,  $\theta$  Pitch).

- ✓ The UK symbol is showing at the top of the screen.
- ✓ Radians are on for arguments, polar curves and any calculus with trig.
- ✓ The calculator checks the answer; the working still goes on paper.

Videos by Bicen Maths, Casio Education UK and CASIO. Skills based on the Core Pure content of Pearson Edexcel's A level Further Mathematics specification.