

fx-CG100 Calculator Skills

AS and A level Maths

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

AS Maths: Pure

1 Negative and fractional powers

Tip: type the power straight into the power key's box.

$$8^{-\frac{2}{3}} = \frac{1}{4}$$

[▶ Watch](#)

Casio

2 Checking quadratic equation answers

[▶ Watch](#)

Casio UK

3 Checking simultaneous equations

[▶ Watch](#)

Casio UK

4 ${}^nC_r$ and factorials (!)

Tip: ! sits in **CATALOG** → Probability, next to ${}^nC_r$.

[▶ Watch](#)

Bicen Maths · 21:38

5 Binomial expansion coefficients

Tip: multiply ${}^nC_r$ by the powers. The x^2 coefficient in $(1 + 3x)^5$ is ${}^5C_2 \times 3^2 = 90$.

[▶ Watch](#)

Bicen Maths · 21:38

6 sin, cos and tan

[▶ Watch](#)

Casio

7 Vectors

[▶ Watch](#)

Casio UK

8 The gradient at a point (dy/dx)

[▶ Watch](#)

Casio UK

9 Checking a definite integral

▶ Watch

Casio UK

10 e^x and logarithms

▶ Watch

Casio

Tip: e^x has its own key, and $\ln$ is the **SHIFT** function on that key.

AS Maths: Statistics

11 Mean, median and summary statistics from lists, frequency tables and grouped tables

▶ Watch

Casio UK

12 ${}^nC_r$ for binomial probabilities

▶ Watch

Bicen Maths · 21:38

13 Binomial probabilities, including $P(X \leq x)$

▶ Watch

Casio UK

Trap: "at most 7" means $P(X \leq 7)$, so use the cumulative option, not $P(X = 7)$.

14 Critical values for a hypothesis test

▶ Watch

Casio UK

AS Maths: Mechanics

15 Vectors

▶ Watch

Casio UK

16 Checking quadratic equation answers

▶ Watch

Casio UK

A level Maths: Pure

17 Modulus functions

▶ Watch

Bicen Maths · 1:12

18 Sequences: listing terms and checking an n th term

▶ Watch

Casio UK

19 Sums of series (Σ)

▶ Watch

Bicen Maths · 16:38

20 Binomial expansion coefficients for any n

[▶ Watch](#)

Bicen Maths · 21:38

Tip: ${}^nC_r$ only works when n is a whole number. For a fractional or negative n , type the coefficient out. The x^2 coefficient in $(1+x)^{-1/2}$ is

$$\frac{\left(-\frac{1}{2}\right)\left(-\frac{3}{2}\right)}{2!} = \frac{3}{8}$$

21 Trig and inverse trig in radians

[▶ Watch](#)

Casio

Tip: switch to radians in **SETTINGS** → Angle, then check Rad shows at the top of the screen.

22 Solving any equation numerically (SolveN)

[▶ Watch](#)

Casio UK

23 Solving quadratics with the polynomial solver

[▶ Watch](#)

Casio UK

24 Iteration: x_1 , x_2 and x_3

[▶ Watch](#)

Casio UK

Tip: type x_0 and press **EXE**, then type the formula with **Ans** in place of x_n . Each **EXE** gives the next term.

25 Checking definite integrals, including integration by parts

[▶ Watch](#)

Bicen Maths · 15:31

A level Maths: Statistics

26 The PMCC (r)

[▶ Watch](#)

Bicen Maths · 29:55

27 Normal probabilities

[▶ Watch](#)

Casio UK

28 Inverse normal: values, z -values and critical regions

[▶ Watch](#)

Casio UK

A level Maths: Mechanics

29 Solving quadratic equations

▶ Watch

Casio UK

30 Storing exact values

▶ Watch

Casio

Tip: press **SHIFT** then the key below it to type $\rightarrow$, then **ALPHA** and a letter, for example **Ans** $\rightarrow$ A.

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

Videos by Casio Education UK, CASIO and Bicen Maths. Skills based on Pearson Edexcel's calculator guide.