**A guide to use calculators when teaching AS and A level Mathematics**

Below you can find links to videos designed to help you teach the content of AS and A level Mathematics qualifications with the aid of the calculator.

**AS Mathematics – Pure Mathematics content**

Use your calculator to enter negative and fractional powers.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662194/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662195/external/0/uid/357726)

Use your calculator to check solutions to quadratic equations quickly.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662196/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662197/external/0/uid/357726)

Check solutions to simultaneous equations using your calculator.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662198/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662199/external/0/uid/357726)

Use the *nCr* and ! functions on your calculator to answer this question.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662200/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662201/external/0/uid/357726)

Work out each coefficient quickly using the *nCr* and power functions on your calculator.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662202/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662203/external/0/uid/357726)

Use trigonometrical functions on your calculator.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662204/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662205/external/0/uid/357726)

Check vector calculations on your calculator.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662206/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662207/external/0/uid/357726)

Use your calculator to check solutions to quadratic equations quickly.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662208/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662209/external/0/uid/357726)

Find the value of the first derivative at a given point on your calculator.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662210/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662211/external/0/uid/357726)

Check your solution to a definite integral using your calculator.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662212/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662213/external/0/uid/357726)

Work this out in one go using the e[ ] button on your calculator.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662214/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662215/external/0/uid/357726)

Use the logarithm buttons on your calculator.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662216/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/662217/external/0/uid/357726)

**AS Mathematics – Statistics content**

Use your calculator to find the mean and median of discrete data.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682278/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682279/external/0/uid/357726)

Use your calculator to find summary statistics from a frequency table.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682280/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682281/external/0/uid/357726)

Use your calculator to find summary statistics from a grouped frequency table.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682282/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682283/external/0/uid/357726)

Use the *nCr* function on your calculator to work out binomial probabilities.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682284/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682285/external/0/uid/357726)

Use the binomial **cumulative distribution** function on your calculator. You want to find P(*X* ≤ 7), not P(*X* = 7). On some calculators, this is labelled 'Binomial CD'.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682288/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682289/external/0/uid/357726)

 Find the critical value for a hypothesis test using your calculator.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682290/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682291/external/0/uid/357726)

**AS Mathematics – Mechanics content**

Check calculations with vectors on your calculator.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682292/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682293/external/0/uid/357726)

 Use your calculator to check solutions to quadratic equations quickly.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682294/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/682295/external/0/uid/357726)

**A level Mathematics – Pure Mathematics content**

Check solutions for a set of partial fractions.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695250/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695251/external/0/uid/357726)

Use your calculator to work out values of modulus functions.

* [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695256/external/0/uid/357726)
* [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695257/external/0/uid/357726)

Use the table function on your calculator to generate terms in the sequence for this function, or to check an *n*th term.

* [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695273/external/0/uid/357726)
* [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695274/external/0/uid/357726)

Calculate the sum of series.

* [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695277/external/0/uid/357726)
* [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695278/external/0/uid/357726)

Check your answer by using your calculator to calculate the sum of the series.

* [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695282/external/0/uid/357726)
* [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695283/external/0/uid/357726)

Use your calculator to calculate the coefficients of the binomial expansion.

* [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695290/external/0/uid/357726)
* [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695291/external/0/uid/357726)

Use your calculator to evaluate trigonometric functions in radians.

* [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695297/external/0/uid/357726)
* [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695298/external/0/uid/357726)

Solve this equation numerically using your calculator.

* [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695314/external/0/uid/357726)
* [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695315/external/0/uid/357726)

Use your calculator to evaluate inverse trigonometric functions in radians.

* [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695317/external/0/uid/357726)
* [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695318/external/0/uid/357726)

Use the polynomial function on your calculator to solve the quadratic equation.

* [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695342/external/0/uid/357726)
* [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695343/external/0/uid/357726)

Use the iterative formula to work out *x*1, *x*2 and *x*3. You can use your calculator to find each value quickly.

* [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695366/external/0/uid/357726)
* [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695367/external/0/uid/357726)

Use your calculator to check your value of a using numerical integration.

* [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695374/external/0/uid/357726)
* [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695375/external/0/uid/357726)

Evaluate integrals of the product of two functions.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695379/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695380/external/0/uid/357726)

Perform calculations on 3D vectors using your calculator.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695396/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/695397/external/0/uid/357726)

**A level Mathematics – Statistics content**

Use your calculator to calculate the PMCC.

* [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713361/external/0/uid/357726)
* [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713362/external/0/uid/357726)

Use the Normal CD function on your calculator to find probabilities from a normal distribution.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713363/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713364/external/0/uid/357726)

Use the Inverse Normal function on your calculator to calculate values which satisfy given probability statements for the normal distribution.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713365/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713366/external/0/uid/357726)

Use the Inverse Normal function on your calculator with the standard normal distribution.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713367/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713368/external/0/uid/357726)

Use the inverse normal distribution function on your calculator to find the critical region directly.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713369/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713370/external/0/uid/357726)

**A level Mathematics – Mechanics content**

Use your calculator to solve a quadratic equation.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713373/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713374/external/0/uid/357726)

Use the STO function to store exact values on your calculator.

•      [Graphic calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713375/external/0/uid/357726)

•      [Scientific calculator tutorial](https://www.activeteachonline.com/default/player/video/id/713376/external/0/uid/357726)