

# CALCULATORS IN EXTERNAL EXAMS 2017 – 2018

Note that these regulations apply to **GCE, GCSE and International GCSE Mathematics** examinations.

## Using calculators

For question papers where the use of calculators is allowed, candidates are responsible for making sure that their calculators meet the awarding bodies' regulations.

The instructions set out in this section apply to all examinations unless stated otherwise in the appropriate awarding body's subject-specific instructions.

**Candidates should be told these regulations beforehand and be familiar with the *Information for Candidates* documents.**

### Calculators must be:

- of a size suitable for use on the desk;
- either battery or solar powered;
- free of lids, cases or covers which have printed instructions or formulas.

### Calculators must not:

- be designed or adapted to offer any of these facilities:
  - language translators;
  - symbolic algebra manipulation;
  - symbolic differentiation or integration;
  - communication with other machines or the internet.
- be borrowed from another candidate during an examination for any reason (an invigilator may give a candidate a replacement calculator)
- have retrievable information stored in them - this includes:
  - databanks;
  - dictionaries;
  - mathematical formulas;
  - text.

### The candidate is responsible for the following:

- the calculator's power supply;
- the calculator's working condition;
- clearing anything stored in the calculator.

**Where access is permitted to a calculator for part of an examination, it will normally be acceptable for candidates to place their calculators on the floor under their desks in sight of the invigilator(s) for the non-calculator portion of the exam.**

## Notes

The crucial **prohibitions** above are to do with calculators which can perform **symbolic algebra manipulation and/or symbolic differentiation or integration** or can communicate with other calculators or the internet; such calculators are still quite expensive and include, **but are not limited to:**

<b>Casio:</b>	Algebra FX2.0, Algebra FX2.0 PLUS, ClassPad 300 (all models)
<b>Hewlett Packard:</b>	HP 40G, HP 40GS, HP 48G, HP 48G II, HP 49G, HP 49G PLUS, HP 50G, HP Prime
<b>Texas Instruments:</b>	TI-89, TI-89 (Titanium), TI-92, TI-92 PLUS, Voyage 200, TI- <i>n</i> spire CAS

There is no list of calculators which *can* be used. Students for the new linear AS and A level Mathematics examinations are expected to have a calculator with both an iterative function and the ability to compute summary statistics and access probabilities from standard statistical distributions. Students for the new linear AS Further Mathematics examinations are expected to have a calculator with the an iterative function, the ability to compute summary statistics and access probabilities from standard statistical distributions and the ability to perform calculations with matrices up to at least order 3 x 3.

Students are allowed to take more than one calculator into the examination.