**Purpose**
To provide teachers and students with:

- an up-to-date description of the types of calculators that may and may not be used by students sitting a General Senior Syllabus summative external assessment that permits the use of a scientific calculator
- instructions for how calculators must be used in the external assessment.

**Approved calculators**
Calculators used by students in the summative external assessment must be handheld and solar or battery powered.

Below is a list of calculators approved for use in General Senior Syllabus summative external assessments that permit the use of a scientific calculator (or a non-programmable calculator). For subject-specific information, refer to the relevant senior syllabus and the external assessment equipment list.

**Approved scientific calculator list**

<table>
<thead>
<tr>
<th>Brand</th>
<th>Models</th>
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<tbody>
<tr>
<td>Abacus</td>
<td>SXII-MATRIXa&lt;br&gt;SXII-MATRIXn</td>
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<tr>
<td>Anko</td>
<td>Scientific calculator</td>
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<tr>
<td>Canon</td>
<td>F717SGA&lt;br&gt;F-720&lt;br&gt;F-720i</td>
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<tr>
<td>Casio</td>
<td>fx-82AU&lt;br&gt;fx-82AU PLUS&lt;br&gt;fx-82AU PLUS II&lt;br&gt;fx-82AU PLUS II 2nd Edition&lt;br&gt;fx-8200 AU&lt;br&gt;fx-100AU&lt;br&gt;fx-100AU PLUS&lt;br&gt;fx-100AU PLUS 2nd Edition</td>
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<tr>
<td>Hewlett-Packard (HP)</td>
<td>HP 8s&lt;br&gt;HP 10s&lt;br&gt;HP 10s+&lt;br&gt;HP 300s</td>
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<tr>
<td>Scholar</td>
<td>DS-82MS&lt;br&gt;KD-350MS&lt;br&gt;D1-5&lt;br&gt;SC-150MX</td>
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</tbody>
</table>
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<table>
<thead>
<tr>
<th>Brand</th>
<th>Models</th>
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<tbody>
<tr>
<td>Sharp</td>
<td>SC-250MX</td>
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<tr>
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<td>EL-531TH</td>
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<td>EL-531THB-WH</td>
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<td>EL-531WH</td>
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<td>EL-531X</td>
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<td>EL-531XH</td>
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<td>EL-W532THBW</td>
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<tr>
<td>Texas Instruments (TI)</td>
<td>TI-30XB MultiView</td>
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<td></td>
<td>TI-30X Plus MathPrint</td>
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</table>

**Other calculators**

Any calculator not listed above may be used as long as it meets the requirements listed below. This includes calculators with more limited features such as basic (pocket and desktop) calculators.

**Features that are permitted**

Calculators should be able to perform addition, subtraction, multiplication, division, square roots and powers. Scientific calculators also typically have access to the following features:

- trigonometric functions and inverse
- fractions and percentages
- statistical operations, such as standard deviation, mean and linear regression.

**Features that are NOT permitted**

Calculators must not allow access to the following features:

- retrievable information, including databanks, dictionaries, mathematical formulas and text
- displaying a graph
- matrix operations
- symbolic algebra manipulation
- programmability
- communication with other machines, students or the internet
- language translation.

Calculator emulation software or equivalent applications running on computers, laptops, tablets, iPads or mobile phones are not permitted.

**Use of calculators in external assessment**

Students are responsible for:

- bringing their own approved calculator
- the working condition of their calculator
- setting their calculator in the correct mode
• adhering to all instructions related to the use of approved calculators.

Students should be familiar with their model of calculator.

Calculators must be silent, handheld and solar or battery powered.

Students must ensure their calculator has adequate power. Where models allow, students can bring in spare batteries and change them. USB-rechargeable calculators should be fully charged prior to the assessment and have sufficient capacity to be used for the duration of the assessment. Any power failure or other issue with a calculator during an assessment will not be taken into consideration.

Unless otherwise stated, students may use a maximum of two approved calculators of any model in an assessment that allows them, e.g. two approved scientific calculators, or one approved scientific calculator and one basic (pocket or desktop) calculator.

Calculators must be free of lids, cases and covers that have printed instructions or formulas, and external storage media.

Students may not borrow a calculator from another student after entering the assessment room.

Any apps or programs that have features that are not permitted must be deleted or inaccessible.

Calculators must not be able to communicate wirelessly.

The calculator’s memory must be cleared prior to the assessment.

Supervisors will check that calculators meet the specifications outlined in this document prior to the assessment.

Calculator use will be monitored throughout the assessment.

On completion of the assessment, calculators must be cleared so that students are not able to use them to store assessment questions and/or answers.

More information

If you would like more information, please phone (07) 3864 0444 or email the Mathematics learning area at Maths@qcaa.qld.edu.au.