



Sec 3 Mathematics Success Checklist

For Secondary 3 (Singapore). A fast checklist for Maths (4052) and Additional Maths (4049) readiness.

Why tuition support now

- ☐ Sec 3 is the jump to upper secondary: more functions, graphs, proofs and multi-step problems.
- ☐ Small gaps from Sec 1-2 snowball; a weekly plan prevents panic later.
- ☐ Small-group tuition helps students build method-mark habits and fix mistakes fast.

Sec 3 syllabus snapshot (what you should see covered)

E-Math (4052)

Number & Algebra: standard form, indices, quadratics (graphs/equations), inequalities, sets, matrices
Geometry/Masurement: circles, coordinate geometry, vectors, mensuration (incl. radians/arc), bearings
Statistics & Probability: data, averages/spread, probability reasoning

A-Math (4049)

Algebra: quadratics, surds, polynomials/partial fractions, binomial, exp/log
Trig: identities and equations; modelling
Calculus: differentiation and integration + applications

How we want the best for our Sec 3 Maths students

- ☐ Concept clarity (no memorising without understanding).
- ☐ Method-mark discipline (clear working and clean graphs).
- ☐ Fewer careless mistakes (checking routine + calculator habits).
- ☐ Confidence under pressure (time management and calmness).

Weekly routine (simple and effective)

- ☐ 2 focused practice sessions (60-90 min): one concept, one mixed.
- ☐ 1 timed set (20-30 min) + immediate review.
- ☐ 10 min error log: tag mistake + write the fix.
- ☐ Spaced recall: redo 3 questions from 7-14 days ago.

**Mastery checklist (tick as you master)**

- | | |
|---|--|
| <input type="checkbox"/> Factorise confidently (incl. quadratics). | <input type="checkbox"/> Algebraic fractions: simplify and solve. |
| <input type="checkbox"/> Quadratics: solve (3 methods) and sketch. | <input type="checkbox"/> Simultaneous equations (incl. linear-quadratic). |
| <input type="checkbox"/> Inequalities: regions and number line. | <input type="checkbox"/> Graphs: scale, labels, key features. |
| <input type="checkbox"/> Circle theorems with correct reasons. | <input type="checkbox"/> Mensuration: radians/arc, units, rounding. |
| <input type="checkbox"/> Bearings: neat diagram then solve. | <input type="checkbox"/> Trig: use correct formula for the situation. |
| <input type="checkbox"/> Statistics: choose method and read graphs. | <input type="checkbox"/> Probability: AND/OR, tree diagrams when useful. |
| <input type="checkbox"/> A-Math: surds, polynomials, binomial. | <input type="checkbox"/> A-Math: exp/log + differentiation/integration basics. |

Top avoidable mistakes

- | | |
|--|---|
| <input type="checkbox"/> Not enough working (lose method marks). | <input type="checkbox"/> Wrong calculator mode (DEG vs RAD). |
| <input type="checkbox"/> Rounding too early. | <input type="checkbox"/> Missing brackets / sign errors. |
| <input type="checkbox"/> Graph labels or scale missing. | <input type="checkbox"/> Spending too long on low-mark questions. |

Official MOE/SEAB links (save these)

- ☐ MOE: Secondary syllabuses (Mathematics): <https://www.moe.gov.sg/secondary/syllabus>
- ☐ SEAB 4052 Mathematics (2026) PDF:
https://www.seab.gov.sg/files/O%20LvI%20Syllabus%20Private%20Cddts/2026/4052_y26_sy.pdf
- ☐ SEAB 4049 Additional Mathematics (2026) PDF:
https://www.seab.gov.sg/files/O%20LvI%20Syllabus%20Private%20Cddts/2026/4049_y26_sy.pdf
- ☐ SEAB approved calculators: <https://www.seab.gov.sg/approved-calculators/>

Need a personalised Sec 3 plan? WhatsApp +65 8823 1234 (scan the QR in the top banner).