CAT Coding Student and Coordinator Instruction Sheet

This document provides combined instructions for teachers and students participating in the AMT's 2026 CAT Coding program.

Key dates

Program window: Friday 22 May – Friday 12 June 2026
Entries close: COB Thursday 11 June 2026 (that's right: you can enter students right up until the day before they are due to submit code, however, it will be a much better experience if you use the full three weeks)

CAT Coding is available on the AMT student competition portal throughout the program window, from **7:00am AET on the first day** until **9:00pm AET on the final day**.

Customer service and technical support is available Monday to Friday, 9:00am–5:00pm AET.

About CAT Coding

CAT Coding is an online programming challenge based on selected problems from this year's **Computational and Algorithmic Thinking (CAT)** competition run by the Australian Maths Trust (AMT).

While CAT focuses on developing algorithms and problem-solving strategies, **CAT Coding allows students to implement these ideas using code,** thereby providing a practical introduction to text-based programming.

Key features of CAT Coding:

- CAT Coding is **not a competition**.
- There are **no scores, rankings or awards**.
- There is **no time pressure**; students work over three weeks.
- Students are **encouraged to collaborate** and learn together.
- Students can **submit, revise and improve** their solutions multiple times.
- Automated checking provides **instant feedback**.

The program is intended to be both a learning experience and a pathway into further AMT coding programs such as the Raspberry Pi Foundation Coding Challenge and the Australian Informatics Olympiad (AIO).

Who is CAT Coding for?

CAT Coding is suitable for all students in Years 5 – 12, including those with **little prior coding experience**. It is primarily pitched toward secondary school students. That said, primary students will find problems from the primary division of the CAT competition included in the CAT Coding questions.

Students will need to be able to write programs that can:

- Print text
- Perform arithmetic
- Read input from a file

It would also be helpful to be able to:

- Implement and use functions/methods
- Create and use arrays and/or lists

Students can develop these skills progressively with outside resources and research over the course of CAT Coding. Students who have only some of this knowledge are encouraged to participate and learn new concepts during the program window, although this might mean that they focus on completing only one or two of the questions.

Platform and programming languages

CAT Coding is delivered via the AMT student competition portal at
https://competitions.amt.edu.au/

All problems are accessed online through the student interface.
Students may submit solutions in any of the following languages:

- C (C11)
- C++
- Java (Java 11)
- Python 3

There are **six coding questions**, all adapted from the 2026 CAT competition.

How to work on CAT Coding

Getting started

- Students log in to the student competition portal using details provided by their teacher.
- Questions are available directly within the platform.

Writing and testing code

- Students write programs in their own coding environment or directly in the platform. If students are writing their code directly in the platform, they should regularly back up their work to a file on their computer.
- Each problem contains:
  - A problem statement
  - A description of the required input
  - A description of the expected output
  - **Skeleton (template) code** for C++, Java and Python to handle the input and output of data.

IMPORTANT: It is strongly recommended that students use the template code, particularly beginners.

Submitting solutions

- Students submit their **source code only**, directly into the competition platform.
- Solutions are automatically checked by the system against test cases.
- After each submission, students can access a report telling them how many test cases their code succeeded at solving.
- Students may submit improved solutions multiple times during the program window.

The automated checking provides feedback only. There is **no final score or ranking** in CAT Coding.

Technical requirements

Each coding question includes:

- Time and memory limits to ensure programs run efficiently
- Test cases used to check correctness.

Important expectations for students:

- Output must match the specified format exactly
- Leading and trailing spaces on each line are ignored but the structure of the output still matters
- Extra text (such as explanations or labels) will cause a submission to be marked as incorrect
- Programs must run as a **single process**
- Programs must not:
  - Access the internet
  - Use messaging or communication services
  - Share or upload code publicly
  - Contain malicious or harmful code

Teacher notes

- CAT Coding is designed as a **learning and enrichment activity**, not an assessment.
- The program aligns well with introductory algorithmic thinking and coding concepts across learning areas. Teachers do not need specialist coding expertise to run the program.

During the Program

- CAT Coding may be completed **at school or at home**.
- Supervision is **not required**.
- Program-wide announcements may be sent via the platform during the program window.
- Students may contact the AMT support team using the messaging feature within the platform.
- Teachers are encouraged to:
  - Support discussion of problem-solving strategies.
  - Encourage careful testing and iteration. Ask students to revisit and refine their solutions during the program window.
  - Foster collaboration and exploration.

After the Program

- Students receive a **participation certificate**.
- Teachers and students may be invited to complete a short feedback survey to help improve future delivery of CAT Coding.

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Administration portal: https://competitions.amt.edu.au/admin/
Student competition portal: https://competitions.amt.edu.au/

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