



# 2021 Australian Mathematics Competition

Coordinator's Handbook – Paper

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## ABOUT THE AMC

The Australian Mathematics Competition (AMC) has 25 multiple-choice questions and five questions that need whole number answers. Students may attempt as many questions as they wish. The earlier problems may use more familiar mathematics while the later problems are more difficult and intended to challenge, needing more sophisticated problem-solving skills.

### Date of the AMC – Wednesday 4 August–Friday 6 August 2021

This year we are allowing a three-day window, to give you more flexible scheduling in your classes. While you can choose any time in this range, it's ideal to have your students sit AMC on the same day.

**Duration:** The actual competition takes 60 minutes for primary and 75 minutes for secondary. Please allow extra time for student registration and competition administration.

Sitting the AMC on an earlier date will not be possible. Supervisors will conduct the competition in a controlled environment according to the [Competition guidelines](#).

### Register for the competition at

<https://competitions.amt.edu.au/admin/>

A teacher is a school administrator or educator responsible for conducting the competition. To register students, a Teacher will need their registered username and password. If these are not known, a teacher can register themselves and this will be approved by the AMT. Teachers enter student numbers for the competition and pay the correct entry fees.

### Important

To make sure the school details are correct on your certificates, please let us know if your school details or contact information have changed by emailing us at [competitions@amt.edu.au](mailto:competitions@amt.edu.au).

## COMPETITION GUIDELINES

**SITTING THE COMPETITION ON AN EARLIER DATE IS NEVER PERMITTED.** This would jeopardise the validity of scores from all schools.

SITTING THE AMC ON A LATER DATE MAY BE PERMITTED when there are compelling reasons, but the AMT must approve these sittings before the competition sitting date. You must declare this later date on the certification form. The late sitting should be as close as possible to the official date. These students will be eligible for awards, but the AMT reserves the right to disqualify such awards where there appears to be a breach of security or the AMT has not approved a late sitting.

Please notify supervising teachers of these rules:

- No student may sit more than one division of the competition.
- No student is to leave the room during the AMC unless accompanied by a supervisor. Students are to stay in the room until the AMC finishes.
- Students are NOT permitted to supervise the AMC.
- Supervisors must collect all AMC papers and answer sheets. If students would like their paper back, have student write their name on the front and return it to them after 10 September 2021.

To maintain the integrity of the AMC and to identify outstanding students, the AMT reserves the right to re-examine students before deciding whether to grant official status to their score.

## AMC PACKAGE

You will receive an AMC package through the mail that contains:

- AMC papers
- plastic envelope for return of answer sheets
- cardboard protector for return of answer sheets
- certification form
- mark-sense answer sheets.

Check that you have received the correct number of AMC papers and answer sheets as per the label on the front of your parcel. See below for how to do this.

Store flat in a secure place until the day of the AMC.

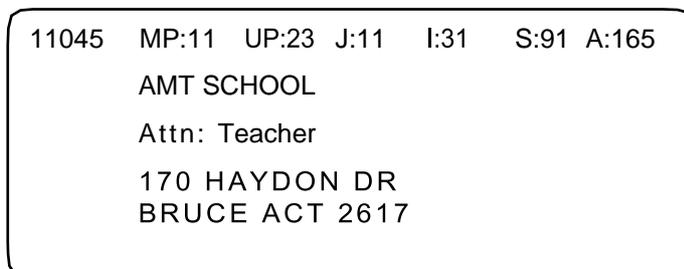
If you need extra answer sheets, you must get these from the AMT. The school receives one extra AMC paper in each division.

For every 200 entries, the school receives three extra answer sheets.

Note: If you use (and submit) these extra answer sheets, AMT will charge you the standard entry fee for these extra answer sheets. We cannot process photocopied answer sheets or sheets from previous years.

### Address label coding

Here's an example that shows the total number of entrants from your school and how they're coded onto the school address label:



Where: **11045** is the school code (please quote this number in all communications)

**MP:11** indicates 11 Upper Primary AMC papers (10 entered + 1 extra)

**UP:23** indicates 23 Upper Primary AMC papers (22 entered + 1 extra)

**J:11** indicates 11 Junior AMC papers (10 entered + 1 extra)

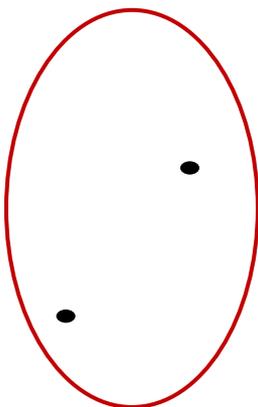
**I:31** indicates 31 Intermediate AMC papers (30 entered + 1 extra)

**S:91** indicates 91 Senior AMC papers (90 entered + 1 extra)

**A:165** indicates 165 Answer sheets (162 entered + 3 extra)

## PREPARING FOR THE COMPETITION

1. Before Wednesday 4 August 2021, complete planning and bookings to ensure the following will be available:
  - **Venue – please allow up to 90 minutes** (there’s 60 minutes working time for primary and 75 minutes working time for secondary, plus set-up and pack up time). Students with special conditions are allowed up to 100 minutes; please factor this into your set-up time if needed.
  - **desks and chairs** for the students
  - **whiteboard/blackboard or overhead projector**
  - **clock**
  - **a supply of spare pencils** (preferably 2B), **erasers, scrap paper and calculators (primary only)**. Note that students must use a PENCIL when filling in details and answer sheets.
2. Supervisors needed for the AMC
  - one supervising teacher to every 40 students if the students are in one hall or room
  - one supervising teacher per classroom of 40 students or fewer if the students are in separate classrooms.
3. Complete the details on the [Instructions for supervisors](#) for distribution to all supervisors. We recommended you hold a meeting with supervisors to familiarise them with the running of the AMC and the format of the answer sheets.
4. **Send reminder notices** a week before the AMC, telling students of the AMC date and reminding staff of the supervisor arrangements. Display the [Instructions for students](#) and answer sheet on the noticeboard on the same day.
5. **Check that you will have access**, early on the morning of the AMC, to the secure area where the AMC papers have been stored.
6. **Tell students** to bring pencils, erasers, rulers, calculators (primary only), scrap paper and printed language dictionaries (if required).
7. Complete Answer Sheet Fields (School Use Only I and II)



- The use of these fields is optional, but useful in a large school. You can use either or both of these fields to identify your students.
- What is filled in here will appear in unobtrusive yet distinguishable characters in the bottom-right corner of the student’s individual letter.
- For example: A school may want to sort certificates into classes for easier distribution—perhaps 7A, 7B or 7C.
- A school may have students from different campuses sitting the AMC. You could designate one campus ‘A’ and instruct all those students to fill in oval A in School Use Only field II. Similarly, the other campus could be designated campus ‘B’ in School Use Only field II.
- Sample shown here is coded 7B

## COMPETITION DAY

1. Remove the AMC papers from the secure storage.
2. Check that the number of AMC papers in each of the divisions corresponds with the label on the front of your AMC parcel.
3. If you don't have enough AMC, photocopy the required extras. **Remember** that you must note any shortfall in AMC papers or any deviation from procedures on the certification form.
4. If the entrants are spread across different locations, organise the AMC papers and answer sheets into the correct bundle sizes for the various room supervisors.
5. Distribute the instructions for the AMC to all supervisors.

## AFTER THE COMPETITION

1. Complete the certification form.
2. Return completed answer sheets.
  - Check that students have correctly coded their school year e.g. '7' for Year 7, '8' for Year 8 etc.
  - Check that the certification form has been correctly completed.
  - Place all answer sheets and the completed certification form into the plastic envelope(s) with the cardboard protector (no paper clips or rubber bands) so that the school name is on the top-left side of the bundle. This makes sure that the answer sheets arrive undamaged and feed correctly into the optical scanner.
  - If your school is returning several envelopes of answer sheets, please make sure they are dispatched as ONE consignment to reduce the risk of an envelope being lost in the mail.
  - The envelope of answer sheets should be dispatched to the AMT within 24 hours. You may like to use Express Post or a courier.
  - The AMT will not accept responsibility for marking answer sheets that are not dispatched promptly. Please notify the AMT if this is not possible.

**Remember to include the completed certification form with your answer sheets.**

The following FOUR pages are for you to print, fill in the relevant details and distribute to your classroom supervisors

## TEACHER CHECKLIST (PAPER)

- Preliminary arrangements/bookings made
  - supervisors
  - location
  - time
  - desks and chairs
  - supply of B or 2B pencils and scrap paper.

Supervisor's name	Class	Location	Time

- INSTRUCTIONS FOR STUDENTS distributed or displayed
- INSTRUCTIONS FOR SUPERVISORS distributed
- Certification form correctly completed
- Answer sheets and certification form mailed to the AMT (date, time and location)
- AMC papers returned to students after 10 September 2020.

## INSTRUCTIONS FOR SUPERVISORS (PAPER)

Supervisor's name

---

Class

Location

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Time

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### Before the competition

1. Collect the following from the school AMC Teacher:
  - AMC papers
  - answer sheets
  - supply of spare B or 2B pencils, erasers and scrap paper.
2. Arrange the desks so that no student can see the answers of another student in the same division.
3. Place the AMC papers and answer sheets on the desks.

### When students are seated in the room

1. Ask students NOT to open the AMC papers. Check that:
  - students' mobile phones are stored outside the room
  - no student has brought aids other than calculators (primary only) and language dictionaries (check dictionaries for loose pages or insertions)
  - all students have a B or 2B pencil, eraser and scrap paper
  - all students understand the need to work under examination conditions.
2. We suggest that all students complete the details on their answer sheets simultaneously:
  - date
  - name of the school
  - student's name
  - student's school year
  - gender
  - date of birth (for birth dates on the first nine days of the month, the zero oval in the left-hand column should be filled in, then the birth date in the right-hand column).
3. Tell students that the answer sheets are scanned and that certificates are printed with each student's name, school and school year AS ENTERED on the answer sheet.
4. If the school year is not completed correctly, the paper cannot be marked.
5. Ask students to check that they have the correct AMC paper for their division: Middle Primary 3–4, Upper Primary Years 5–6, Junior Years 7–8, Intermediate Years 9–10, Senior Years 11–12. (Note these are Australian school years.)
6. Ask students to record their name on the front of the AMC paper if they want their paper returned to them after the AMC.

**Starting the competition**

1. Read out the following instructions and make sure that students understand them:
  - Do not open the AMC paper until told to do so.
  - Maintain silence at all times.
  - Do not bring mobile phones into the room.
  - You may use pocket or scientific calculators in Middle and Upper Primary only.
  - You may NOT borrow equipment without a supervisor’s permission.
  - There are 30 questions. Questions 1–10 are worth 3 points each, questions 11–20 are 4 points each and 21–25 are 5 points each. Questions 26 to 30 are worth 6, 7, 8, 9, and 10 points respectively.
  - The first 25 questions are multiple choice with 5 choices. The last 5 questions need an integer answer from 0–999.
  - Penalties do not apply for incorrect answers.
  - You are allowed 60 minutes working time for primary papers and 75 minutes working time for secondary papers. Students with special conditions are allowed up to 100 minutes. There is no extra reading time.
  - This is a competition not a test; do not expect to answer all questions.
  - Diagrams are NOT drawn to scale. They are intended only as aids.
  - The questions have been thoroughly checked. Each question stands as written. No further explanation of questions can be given. Primary students may ask the meaning of words.
  - You must not leave your seat. If you have any other questions or problems, please raise your hand and wait for a supervisor.
  - If you wish to leave the room a supervisor must accompany you.
  - Record all your answers on the answer sheet.
  - Use B or 2B lead pencils only. Ball point and ink pen markings may not activate the optical scanner.
  - Do not make any other marks on the answer sheet as these may make the sheet unreadable.
  - If you make an error, use a plastic eraser to completely remove all lead marks and smudges.
  - Check that the number of the answer you are filling in is the same as the number of the question you are answering. This is particularly important if you decide to leave an answer blank.
  - To maintain the integrity of the AMC and to identify outstanding students, the AMT reserves the right to re-examine students before deciding whether to grant official status to their score.
2. Start the AMC and tell students of the finishing time.

**During the competition**

1. Please make sure that examination conditions are maintained, and the rules set out below are followed.
  - If a student needs to leave the room, a supervisor must accompany the student otherwise the student will not be re-admitted.
  - Late students may be admitted up to 30 minutes after the AMC starts but no extra time is allowed.
  - No student may leave early.
2. Complete the following details on the certification form:

Australian year level	3	4	5	6	7	8	9	10	11	12	TOTAL
Number of students											

## Finishing the competition

1. Ask students to stop writing and sit quietly until all the AMC papers are collected.
2. Ask students to hold their answer sheets so that the side showing the school name is facing up and the cut-off corner is away from them. Collect the answer sheets, checking that the student details are filled in correctly, especially the school year, school name and student's last name, and that lead pencil has been used. Also check that the students have coded their answers onto the other side of the answer sheet.

## Returning the answer sheets

1. Return this form and the students' answer sheets to your school's AMC coordinator immediately after the competition.
2. Check that you have filled in the number of entries (above) for the group you supervised and that all the answer sheets have the school name in the top-left corner. The cut-off corners in the bottom right of the page will then line up correctly.

## INSTRUCTIONS FOR STUDENTS (PAPER)

Class

Location

Time

### Sitting the paper

- No student may sit more than one division of the competition.
- Do not open the AMC paper until told to do so.
- Maintain silence at all times.
- Do not bring mobile phones into the room.
- You may NOT borrow equipment without a supervisor's permission.
- You are allowed 60 minutes working time for primary papers and 75 minutes working time for secondary papers. Students with special conditions are allowed up to 100 minutes. There is no extra reading time.
- This is a competition not a test; do not expect to answer all questions.
- Diagrams are NOT drawn to scale. They are intended only as aids.
- The questions have been thoroughly checked. Each question stands as written. No further explanation of questions can be given.
- You must not leave your seat. If you have any other questions or problems, please raise your hand and wait for a supervisor.
- If you need to leave the room a supervisor must accompany you.
- Record all your answers on the answer sheet provided.
- Do not make any other marks on the answer sheet as these may make the sheet unreadable. If you make an error, use a plastic eraser to completely remove all lead marks and smudges.
- Check that the number of the answer you are filling in is the same as the number of the question you are answering. This is particularly important if you decide to leave an answer blank.
- To maintain the integrity of the AMC and to identify outstanding students, the AMT reserves the right to re-examine students before deciding whether to grant official status to their score.

### Scoring system

- There are 30 questions. Questions 1–10 are 3 points each, questions 11–20 are 4 points each and 21–25 are 5 points each. Questions 26–30 are worth 6, 7, 8, 9, and 10 points respectively.
- The first 25 questions are multiple choice with 5 choices. The last 5 questions require an integer answer from 0–999.
- Penalties do not apply for incorrect answers.

### Equipment

- Primary students may use any teaching aids normally available in the classroom, such as MAB blocks, currency, pocket and scientific calculators etc. and printed language dictionaries. Teachers may explain the meaning of words.
- Secondary students may not use calculators or other calculating aids. Printed language dictionaries are allowed.
- Use B or 2B lead pencils only. Ball point and ink pen markings may not activate the optical scanner.