Summary report of the 2017 ATAR course examination: Mathematics Applications

| Year | Number who sat | Number of absentees |
| :---: | :---: | :---: |
| 2017 | 8992 | 174 |
| 2016 | 8867 | 199 |

## Examination score distribution - Written



## Summary

Attempted by 8992 candidates
Mean 60.96\% Max 99.31\% Min 1.98\%
The examination consisted of two sections: a Calculator-free section and a Calculatorassumed section.

Section means were:
Section One: Calculator-free
Mean 66.56\%
Attempted by 8989 candidates
Section Two: Calculator-assumed
Attempted by 8979 candidates
Mean 23.30(/35) Max $35.00 \quad$ Min 1.98
Mean 58.01\%
Mean 37.70(/65) Max 64.31 Min 0.00

## General comments

The examination was fair with some challenging questions, but with plenty of questions that candidates could attempt with confidence. It appeared that there was enough time to answer all questions. Question 2 (Hungarian algorithm) appeared to be the easiest on the paper with a mean of $80.45 \%$ and candidates found Question 14 (Loans) with a mean of $28.3 \%$ to be the most difficult.

The performance on the network questions this year was done well, with most candidates seeming to have a sound grasp of the terminology. However, questions that involved graphing (points or lines), were not done well. Many candidates did not use a ruler when graphing straight lines. Candidates are still struggling with questions that require some sort of explanation. Basic arithmetic skills are still lacking with many candidates, for example, not being able to convert 16 out of 80 to a percentage. The finance question in Section One proved to be a good discriminating question, with those candidates who read the question carefully, performing very well. However, it was apparent by the responses of many candidates that they thought they could not do the question without a calculator.

## Advice for candidates

- Use a ruler when graphing straight lines.
- When asked to graph a least-squares line, clearly indicate the points you used to draw the line.
- Even when a question is worth 2 marks, show some form of working, as an incorrect answer not accompanied by working attracts no marks.
- Make sure you have carefully read the scale on a graph when asked to plot points.
- When writing explanations, write legibly.


## Advice for teachers

- Ensure students understand and always use the correct terminology, especially in network questions.
- Emphasise to students to ask the question 'does the answer seem reasonable in the context of the question?'
- Encourage students to write down the values of N, I, PV etc. when using the finance app on their calculator.


## Comments on specific sections and questions

Section One: Calculator-free ( 53 Marks)
Most candidates attempted all questions in this section and found it generally easier than Section Two. Basic arithmetic and algebraic skills were lacking, especially in Questions 1, 4 and 5. Question 4 and Question 6(a) proved to be the most discriminating questions.

## Section Two: Calculator-assumed (94 Marks)

Most candidates attempted all questions in this section. It appeared candidates found this more difficult than the first section. Some of the finance questions, particularly Question 14, proved to be the most difficult. Showing inadequate working was quite common. This resulted in candidates not attracting full marks for their answers.

