

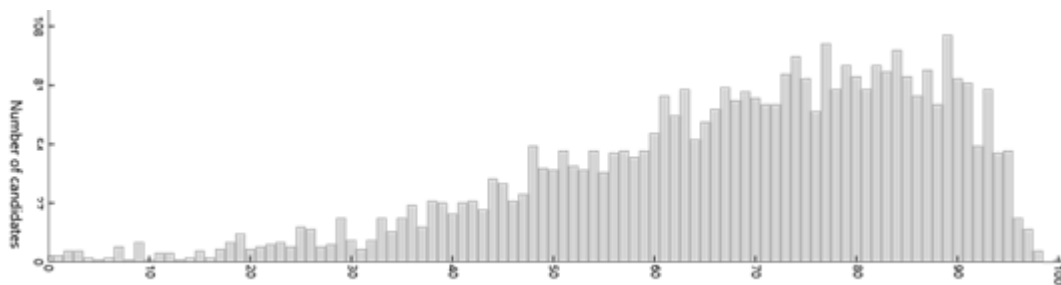


## Summary report of the 2021 ATAR course examination report: Mathematics Methods

Year	Number who sat	Number of absentees
2021	3997	55
2020	4094	60
2019	4050	60
2018	4417	42

The number of candidates sitting and the number attempting each section of the examination can differ as a result of non-attempts across sections of the examination.

### Examination score distribution–Written



### Summary

The examination consisted of two sections, Section One: Calculator-free and Section Two: Calculator-assumed. Most candidates were able to access all the questions. The mean for Section One was higher than the mean for Section Two. It was pleasing to see improvement in areas previously noted as areas of concern, resulting in an improved performance from candidates; this contributed to the higher mean of 67.82% this year.

Attempted by 3996 candidates                      Mean 67.82%                      Max 99.68% Min 0.00%

Section means were:

Section One: Calculator-free	Mean 69.27%			
Attempted by 3994 candidates	Mean 24.24(/35)	Max 35.00	Min 0.00	
Section Two: Calculator-assumed	Mean 67.04%			
Attempted by 3989 candidates	Mean 43.58(/65)	Max 64.68	Min 0.00	

### General comments

Candidates who read questions carefully and showed attention to detail performed well. The use of exponential functions to solve practical problems and applications of integration were content areas where candidates struggled. Although there was an improvement from previous years in candidate performance on questions involving justification or explanation, this was still an area of concern.

### *Advice for candidates*

- Ensure you carefully read the questions.
- Focus on a deeper understanding of concepts, not just how to perform the required calculations.
- With questions involving motion, ensure you know the difference between distance travelled and displacement.

### *Advice for teachers*

- Ensure that students are very familiar with the syllabus content points and the Glossary of terms, so they have a greater understanding of what the course requires when answering questions.
- Emphasise the understanding of the concepts behind the calculations.
- Make clarity in explanations an area of focus for students.
- Emphasise reading the question carefully and looking for the detail required in the solution.

### ***Comments on specific sections and questions***

#### **Section One: Calculator-free (51 Marks)**

There was a general improvement in this section when compared to previous years. Apart from the correct naming of the distribution, the students did well in the continuous probability question. As has been the case previously, questions involving explanations were poorly attempted.

#### **Section Two: Calculator-assumed (100 Marks)**

Candidates performed well in this section, particularly when determining answers where a calculation was required. It was pleasing to see an improvement in graph sketching, as this was an area of concern in 2020. The analysis of exponential functions is an area that requires attention, as well as the applications of integration (Question 17). Candidates struggled to provide explanations that demonstrated an understanding of sample proportion (Question 10).