EXAM PAPER

General Mathematics Unit 1 & 2 — Practice Exam 2

PREVIEW
This file has the first 15 of the 30 questions in this paper. The rest is locked: it comes with a PrepNest plan, or with the paper itself for VCE.

Reading time: 15 minutes (no writing)
Writing time: 45 minutes
Total time: 60 minutes

SECTIONS IN THIS PAPER

- General Mathematics — 45 min

INSTRUCTIONS

You are not permitted to write during reading time — you may only read the paper and plan your approach. Answer every question you can. Write your working in the space provided for long-answer questions. Marking guidance and full explanations are provided in the separate answer key.

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General Mathematics

45 minutes

1. The "five-number summary" of a data set consists of:

A. Mean, mode, median, range, IQR

B. Mean, standard deviation, range, mode, median

C. Minimum, Q1, median, Q3, maximum

D. Q1, Q2, Q3, Q4, Q5

2. In a boxplot, what does the length of the box itself represent?

A. The range

B. The mean

C. The mode

D. The interquartile range (IQR)

3. A distribution with a long tail extending to the right (higher values) is described as:

A. Symmetric

B. Positively skewed

C. Negatively skewed

D. Uniform

4. A scatterplot shows points trending upward from left to right. This indicates:

A. No correlation

B. A negative correlation

C. A positive correlation

D. An outlier pattern

5. What is the key difference between a sample and a population in statistics?

A. A sample is a subset of the whole population being studied

B. They are the same thing

C. A population is always smaller than a sample

D. A sample only applies to surveys

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6. A data set is: 4, 7, 7, 9, 12, 14, 15, 22. Find the median, Q1, Q3, and the IQR. Show your working.

7. Explain what it means for a data set to be positively skewed, and describe how the mean and median typically compare in this case.

8. Calculate the mean and range of the following data set: 12, 15, 18, 20, 25. Show your working.

9. A data set has Q1 = 15 and Q3 = 25. Using the 1.5 × IQR rule, determine the upper boundary beyond which a value would be considered an outlier. Show your working.

10. What is the key difference between simple interest and compound interest?

A. They are calculated the same way

B. Compound interest is calculated only on the principal each period

C. Simple interest grows faster over time

D. Compound interest is calculated on the principal plus previously earned interest

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11. $2000 is invested at 4% p.a. compound interest, compounded annually. What is the value after 1 year?

A. $2004

B. $2040

C. $2080

D. $2400

12. An interest rate of 7% should be used in a calculation as:

A. 7

B. 0.7

C. 0.07

D. 70

13. What does "straight-line depreciation" mean?

A. The value decreases by the same dollar amount each year

B. The value decreases by a different amount each year

C. The value never decreases

D. The value increases steadily

14. A "flat rate" loan calculates interest based on:

A. The reducing balance each period

B. A randomly changing amount

C. The original loan amount for the entire loan term

D. Only the final repayment

15. In a reducing-balance loan, how is interest for each period calculated?

A. On the original loan amount only

B. It is a fixed dollar amount regardless of balance

C. It is not charged at all

D. On the remaining balance after previous repayments

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30.

15 questions locked, up to question 30.

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PREVIEW

That’s the end of the preview

You’ve seen the first 15 of the 30 questions in General Mathematics Unit 1 & 2 — Practice Exam 2. The full paper is worth 30 marks.

STILL TO COME	QUESTIONS	MARKS
General Mathematics	15	15

The full paper comes with

- Every question, printed exactly like the ones in this preview
- The complete answer key, with the working behind every mark
- A topic report after marking, showing what to practice next

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