



GENERAL MATHEMATICS (UNITS 3&4) (YEAR 12) • PRACTICE ASSIGNMENT

Finance and Networks Practice

RECURSION AND FINANCIAL MODELLING **HARD**

Work through each question in order. Show your working in the space provided where it helps — there's no time limit, just do your best.

- 1

A loan of \$8,000 is repaid at \$600/month with 1% monthly interest charged before each repayment. Find the balance after 2 months.
- 2

Given $V_{n+1} = 1.05V_n - 200$, $V_0 = 3000$, find V_2 .
- 3

Find the determinant of matrix $A = \begin{bmatrix} 4 & 1 \\ 2 & 3 \end{bmatrix}$.
- 4

Explain the difference between a "walk" and a "path" in a network.
- 5

A box plot shows a median higher than expected relative to the mean. What might this suggest about the data's skew?

TEACHER'S REMARKS

Score: _____ / 5