**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_**

**Car Project: Getting a loan**

This is the second of five assessment tasks in the topic of motoring maths. This piece will count towards your overall assessment for VCE Foundation Mathematics.

1. Your bank is offering you two options for a loan to purchase your car.

Option A: 12.3% for 5 years with repayments made every month

Option B: 8.7% for 7 years with repayments made every quarter

Which option should you choose and why? Support your answer with mathematics.

**Marking Scheme**:

This piece is assessing Outcome 3: select and use technology to solve problems in practical contexts.

|  |  |
| --- | --- |
| A level | Use excel to to complete the graph as specified in level B. |
| B level | C level then: For your selected option, now compare the total amount of interest paid if you were to change the time over which your loan is repaid (1, 2, 3, 4 and 5 years). Draw a graph that has length of loan on the x axis and interest paid on the y axis to display your findings. |
| C level | D level plus state what percentage of the most expensive loan you are saving by selecting the least expensive loan. |
| D level | E level plus state the amount saved by choosing the best option rather than the second best option. |
| E level | Use the ASIC personal loan calculator (online). State the total amount paid for each loan option and state your choice. |

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