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| Name:  Teacher : | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | Date:\_\_\_\_\_\_\_\_\_ |
|  | **Year 12 Essentials – Practical Application**  **Loans and Compound Interest**  **Weighting 11% Due Date: \_\_\_\_\_\_\_\_\_\_\_\_** | **Mark \_\_\_\_\_\_\_\_\_** | |

Scenario

Can James afford a new car?

James would like to buy a new car that costs $22 990.

He has had $2000 in a term deposit for the last 2 years earning 1.2% p.a. interest compounded quarterly and has been saving 10% of his salary every month for the last 6 months and putting this money in a savings account that earns 0.65%p.a. interest compounded monthly.

He can use this as a deposit, but he will need to borrow the remaining amount.

James takes home $3400 a month.

You will need to apply the mathematical thinking process:

• interpret the task and gather the key information

• identify the mathematics which could help to complete the task

• analyse information and data from a variety of sources

• apply their existing mathematical knowledge and strategies to obtain a solution

• verify the reasonableness of the solution

• communicate findings in a systematic and concise manner.