**Exploring the Effects Different Factors
 Have on Compound Interest**

**Financial Literacy**

**Unit 1 Line Master 1a**

* Open the Loan Calculator Spreadsheet (Master 2).
* The blue cells indicate the variables you can change:
	+ Purchase Price: the cost of the purchase you are making
	+ Down Payment: the amount of money paid toward the purchase upfront
	+ Annual Interest Rate: the yearly interest rate, as a percent
	+ Loan Duration: the length of the loan, in years
	+ Number of Payments per Year: 12 if paid monthly, 24 if paid bi-monthly, 52 if paid weekly, and 26 if paid bi-weekly
* The Principal (the amount borrowed) is the purchase price, less the down payment.
* Select a variable. Choose to increase or decrease the value of that variable. Predict how the total interest will change, then change the value of the variable
in the spreadsheet to check.

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| --- | --- | --- | --- |
| Variable | Change in variable | Effect on total cost | Explanation |
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 **Exploring the Effects Different Factors
 Have on Compound Interest** (cont’d)

**Financial Literacy**

**Unit 1 Line Master 1b**

Suppose you work as an advisor in a bank and are helping different clients get a loan for their purchase. Use the loan calculator to provide two very different loan options
for each scenario.

1. Your client needs a loan to purchase a new vehicle that costs $28 000.
Criteria:
• monthly payments must be as close to $500 as possible.
• interest rate must be between 2% and 10%.
• maximum loan duration is 7 years.

2. Your client needs $50 000 to make some home improvements.
Criteria:
• they have saved some money that can be used as a down payment.
• monthly payments must be as close to $400 as possible.
• interest rate must be between 4% and 8%.
• maximum loan duration is 20 years.

3. Your client needs a loan to purchase a home in a small town for $380 000.
Criteria:
• they have saved more than 5% of the purchase price, which they can use
 as a down payment.
• monthly payments must be less than $2500.
• interest rate must be between 5% and 7%.
• maximum loan duration is 25 years.