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Goal: Use technology to compare loan options for a used car.

## Part 1 on Sheet 1 (Named Appropriately):

You have decided to purchase a used car that costs $\$ 6,500$. You have enough for a $10 \%$ down payment. Now you want to figure out what financing options are available to you and how they compare. You must find three different institutes (e.g., Wells' Fargo, DCU, Clinton Savings, etc) and use the provided rates for used cars.


| Credit <br> Grantor | Length <br> of Loan <br> (Months) | APR | Monthly <br> Payment | Total Finance <br> Charges (Total <br> Monthly Payments - <br> Loan Amount) | Total Cost of <br> Car |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 24 |  |  |  |  |
|  | 48 |  |  |  |  |
| Bann Payment + <br> Total Monthly <br> Payments) |  |  |  |  |  |
|  | 72 |  |  |  |  |
| Bank 3 | short |  |  |  |  |
|  | mid |  |  |  |  |
|  | long |  |  |  |  |
|  | short |  |  |  |  |

## Applied Math

## Vehicle Financing

Reflection (new Google Doc)

1. Which creditor offers the best interest rate?
2. Which loan has the lowest total? Why is this advantageous?
3. Which loan has the highest total? Why is this advantageous?
4. Which loan(s) would you choose if the maximum you can afford is $\$ 150$ per month? Explain.
5. What generalization can you say about the length of a loan and the APR? Offer an explanation.
6. What generalization can you say about APR and finance charges? Offer an explanation.
7. How do the numbers change if you put $25 \%$ down? Choose one bank and one APR to compare.

## Part 2 on Sheet 2 (Named Appropriately):

The information below was gathered on the purchase of a vehicle that costs $\$ 13,906$. The dealer is offering a $\$ 1,000$ rebate or low-interest financing. You have $10 \%$ for a down payment. Advanced: Change the cost of the vehicle based on a new car that you are interested in and analyze how the numbers change.


| Options | Amount <br> Financed | APR | Length of <br> Loan <br> (months) | Monthly <br> Payment | Total <br> Finance <br> Charges | Total Cost <br> of Car |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\$ 1,000$ <br> Rebate spent <br> elsewhere |  | $5.0 \%$ | 36 |  |  |  |
| $\$ 1,000$ <br> Rebate <br> applied to <br> loan |  | $5.3 \%$ | 48 |  |  |  |
| Low <br> Interest <br> Rate | $5.0 \%$ | 36 |  |  |  |  |
|  |  | $5.3 \%$ | 48 |  |  |  |

Reflection (Continue on Google doc):

1. Explain which option saves you the most money? Which option costs you the most?
2. Which option would you choose? Why?
3. Other observations.

## Applied Math

Vehicle Financing

## Rubric

| A: Exceptional | Proficient Plus: Reflections are insightful. Pictures and links of possible cars <br> that you could possible buy from a dealership. Numbers reflect an actual used <br> vehicle that you would consider purchasing. Include reasons why in your <br> reflections. |
| :--- | :--- |
| B: Proficient | Data is accurate. Organization is clean. Delete unused rows and columns. <br> Spreadsheet auto calculates. Links work well. Reflections are clear. Excellent <br> use of shading |
| C: Basic | Some missing data. Not full auto calculation. |
| D: Developing | Significant portions are missing from spreadsheet. |
| F: Inadequate | Incomplete by missing most information. |

