

Grade 9 Math : Financial Literacy



There are 5 parts to this project day:

1. Video and response: Does Money Make You Mean?
2. Finances Interview with your parents or guardian.
3. Budgets
4. Appreciation and Depreciation
5. Down Payments

Part 1: Does Money Make You Mean?

Watch the video “Does Money Make You Mean” on youtube. (link in Edsby).

Type responses to the questions below. Put your name on the document with a title and print it. Hand it in with this package.

Short Answer (one or two sentences):

1. What was the main goal of the study conducted at UC Berkeley?
2. What did the researchers observe about the rich players' eating habits in the Monopoly game?
3. What is one example of a real-world situation that the researchers used to demonstrate the link between wealth and unethical behavior?

Long Answer (Four to five sentences):

1. The video discusses how wealth can affect a person's behavior and outlook. Think about your own experiences and how you have seen wealth or lack of wealth impact people's actions. How do you think your own behavior might change if you were to suddenly become very wealthy?
2. The article suggests that even small interventions can help to promote empathy and egalitarianism. What are some ways that you can personally contribute to creating a more equitable society? How can you use your own resources, skills, or influence to make a difference?

Finance: Parent/Adult Interview

The goal of this interview is to create space for positive and helpful conversations about finances with your parents and/or other adults who care about you. These conversations are confidential; what you talk about is between you and your parents only – you don't need to report their responses to Mr. Hagen. If your parents are uncomfortable with any of these questions, just move onto another question. These questions are intended to be a starting point for conversation; you are encouraged to ask further questions that you're curious about. Plan for at least a 20 minute conversation with your parents (or another trusted adult).

1. How have you learned about financial literacy over your life?
2. How do you go about budgeting? What are the big priorities in your budget?
3. What is your perspective on debt? Does debt ever worry you? What items are "worth" going into debt for?
4. How do you approach the use of credit cards? What is your approach for paying off the balance owed?
5. What is your perspective on giving? How do you decide which charities/people to support? How do you decide how much of your income to give away?
6. How do you determine how much of your income to save? Do you save in a TFSA? An RRSP? Do you have an RESP for my post-secondary education?
7. What has been the greatest financial challenge that you have faced?
8. How does your faith and your values influence your approaches with money?

For your parents to fill out:

Dear parents, thank you for doing this interview with your son/daughter! Note that this interview is confidential between you and your son/daughter – I only need to know that you and your child had this conversation, not the details of what you discussed. Please sign here to indicate that you had this conversation about finances with your child: _____

I would also appreciate your feedback as a parent on this interview:

1. What are some of the barriers to having these sorts of conversations?
2. Is there another question that you wish had been included in this interview?

Name:

Date:

BUDGETING

A **budget** is an estimate of income and expenses for a specific period of time. The two important components of a budget are **income** (money received) and **expenses** (money spent).

Steps to creating a budget:

1. Know your money – This involves knowing how much money you have, earn, and spend.
2. Make a plan – Determine your financial goals, how much you want to spend or save, and prepare for the unexpected, too.
3. Stick to your plan – Follow your plan by giving up things that do not fit with your goals and revising those goals as needed.

Why would someone need to make a budget?



Would someone who makes a \$100k salary need a budget? Explain why or why not.

What does it mean to “stick to your plan”?

Name:

Date:

BUDGETING

Income

Income is money received from work or investments. Income is taxable, but some income, like gifts, is non-taxable. Employees are paid on a regular basis (usually 1-2 weeks), and get a pay stub, showing income and deductions.

Deductions are any money taken from the income before it makes its way into the employee's bank account. Deductions can include income tax, pension contributions (CPP), employment insurance (EI), life insurance, union dues, etc.

Gross income is the amount of money earned before deductions, and **net income** is the amount of money earned after deductions. Net income is usually the value people are more excited about, because it is the money that actually goes into their bank account.

Most employees have direct deposit set up, which means the money they earn at work gets deposited directly into their account, usually every two week. Why do you think it is still important for them to check their pay stub when they receive one from work?

Deductions are any money taken from the income before it makes its way into the employee's bank account, for things like tax and insurance. Why are deductions important?

Name:

Date:

BUDGETING

Income

Calculate the net income values below.

1.

Robert's gross income is \$1890. On his pay stub, he has \$283 worth of deductions.

Net income:

2.

Jamari's gross income is \$2100. His pay stub shows contributions of \$61.10 to CPP and \$25.80 to EI. He also pays \$419.10 in tax.

Net income:

3.

Alyx's year-to-date gross income is \$17 100. Her pay stub shows "YTD DEDUCTIONS \$4932."

YTD net income:

4.

Monika's year-to-date gross income is \$29 203. Her pay stub shows YTD contributions of \$1823 to CPP and \$734 to EI. She also has paid \$7810 in tax.

YTD net income:

Calculate the gross income values below.

1.

Carlos deposits \$798.12 into his bank account. He notices \$209.39 worth of deductions on his pay stub.

Gross income:

2.

Olive has made \$3928 so far at her summer job this year. She's surprised to see YTD deductions of \$1092 on her pay stub.

YTD gross income:

Name:

Date:

BUDGETING

Income



Match the terms below to the proper definitions.

_____ Gross income

_____ Net income

_____ Deductions

_____ EI Contributions

_____ CPP Contributions

_____ Expenses

- A. Money paid into the Canada Pension Plan
- B. The amount of money earned before deductions
- C. Tax, contributions, insurance, union dues, etc.
- D. Money paid into Employment Insurance
- E. Money spent on needs or wants
- F. The amount of money earned after deductions

On the pay stub below, calculate the values to complete the bottom row.

GameStart 291 Main Street, Ottawa, Ontario, Canada K1A 0G2				EARNINGS STATEMENT		
Adrian Willard 93 Jane Street, Ottawa, Ontario, Canada K1A 0G2						
EMPLOYEE ID		PERIOD ENDING		PAY DATE		CHECK NUMBER
32314		2020/02/10-2020/02/21		2020/02/30		328933
INCOME	RATE	HOURS	CURRENT TOTAL	DEDUCTIONS	CURRENT TOTAL	YEAR TO DATE
REGULAR	50.00	45.00	\$2 250.00	CPP	\$65.03	\$1495.69
OVERTIME	25.00	5.00	\$125.00	EI	\$28.62	\$658.26
VACATION	0.00	0.00	\$0.00	INCOME TAX	\$305.90	\$7035.70
				FEDERAL TAX	\$10.84	\$249.32
				LIFE INSURANCE	\$4.94	\$113.62
				OTHER	\$0.00	\$0.00
YTD GROSS	YTD DEDUCTIONS	YTD NET PAY	CURRENT TOTAL	DEDUCTIONS	NET PAY	
\$39 675.00						

Name: _____

Date: _____

BUDGETING ASSIGNMENT

A **financial planner** is a qualified money-management professional who helps clients meet their financial goals. One strategy to support clients in meeting their financial goals can be to develop a detailed budget.

Your task:

You will assume the role of a financial planner and develop a detailed budget for a client. You will read the client's income and expenses, and make recommendations based on the given information.

You must submit:

- Detailed Budget Worksheet
- Budget Research Worksheet
- Budget Reflection Questions

Assignment Due Date: _____

To begin, read the client profile below and complete the following financial planning worksheets.

First Financial Planning Ltd.

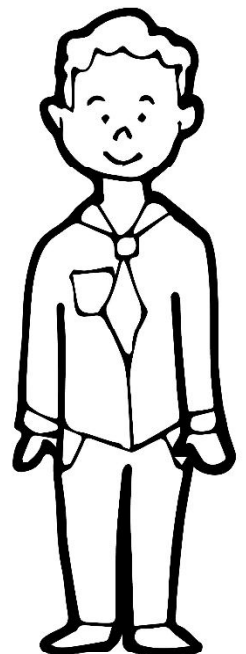
CLIENT PROFILE

Client: SEBASTIAN TORRES

Client Number: 7392

Sebastian is a 25-year-old single male. He currently lives at home with his parents. His net income from work is \$914.92 per month. He also makes about \$110 per month from a side hustle. He has considered his monthly expenses. He pays \$115 for a bus pass, \$14 for his Netflix subscription, \$100 for groceries, \$45 for his cell phone bill, \$70 for a gym membership, \$100 towards his tuition payments, and about \$40 for other expenses, like gifts.

He wants to move out and rent a 1-bedroom apartment for \$750 in Beeton, Ontario, with utilities included.



Name:

Date:

BUDGETING ASSIGNMENT

Detailed Budget

Create a detailed budget for Sebastian below.

Income

Income Source	Amount
Total	

Fixed Expenses

Expense	Amount
Total	

Variable Expenses

Expense	Amount
Total	

Total Income	Total Expenses	Savings
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Name:

Date:

BUDGETING ASSIGNMENT

Budget Research

Research three things Sebastian could do or strategies he could use that could make his budget more flexible. These should be concrete ideas that are actually feasible for someone to implement in real life. For example, "Sebastian currently spends \$70 on his gym membership. He could get a membership at Everytime Fitness for \$35 instead."

Sebastian's Current Spending	Suggestion (supported with research)

Sebastian's Current Spending	Suggestion (supported with research)

Sebastian's Current Spending	Suggestion (supported with research)

Name:

Date:

BUDGETING ASSIGNMENT

Reflection Questions

Will Sebastian be able to afford to move out and rent the apartment he has in mind? Explain.

What other expenses should Sebastian consider that might come along with moving out and renting an apartment?

Will Sebastian have to revise his budget again in the future? What changes could cause someone to need to revise their budget?

APPRECIATION AND DEPRECIATION

Appreciation is the increase in the value of an asset over time. Appreciation is considered a good thing when someone possesses an asset because it means they are gaining value simply by owning an asset.

There are many reasons why an asset might appreciate, such as inflation, changing interest rates, an increase in demand, or a decrease in supply.

Depreciation is the opposite of appreciation. **Depreciation** is when an asset losses value over time. Whether an asset appreciates or depreciates depends on many factors. Assets that have a finite useful life are more likely to depreciate than those that don't.

What does it mean if an asset has a finite life?

Write a list of three assets that might appreciate and three that might depreciate.

Appreciate	Depreciate
<ul style="list-style-type: none">	<ul style="list-style-type: none">
<ul style="list-style-type: none">	<ul style="list-style-type: none">
<ul style="list-style-type: none">	<ul style="list-style-type: none">

Do you think cars are an asset that will appreciate or depreciate? Explain your thinking.

APPRECIATION AND DEPRECIATION

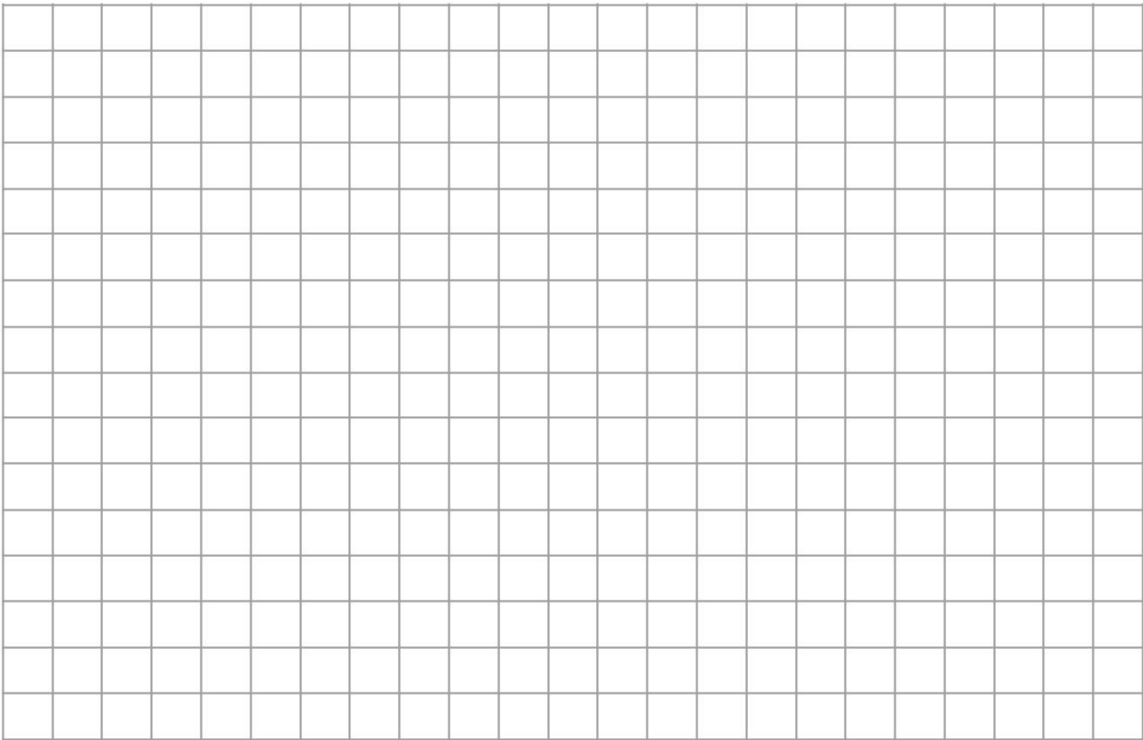
Graphing Activity



Plot the values of the two sport utility vehicles (SUVs) to create a line graph. When you are finished, answer the questions on the following page.

New 2021 SUV		Used 2016 SUV	
Year	Value (\$)	Year	Value (\$)
2021	60000	2021	28000
2022	42000	2022	25500
2023	36000	2023	23500
2024	30000	2024	21000
2025	25000	2025	19000

Y-Axis:



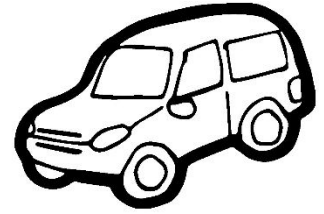
X-Axis:

Name:

Date:

APPRECIATION AND DEPRECIATION

Graphing Activity Questions



Look at the line graph you created using the SUV value data and answer the questions below.

How much value was lost in five years of depreciation for the two SUVs?
What percentage of the total value from 2021 to 2025 was lost? Show your work.

When does a car lose most of its value? Why do you think this is the case?

Explain how the cost of depreciation can be minimized by choosing to purchase a used car rather than a new car.

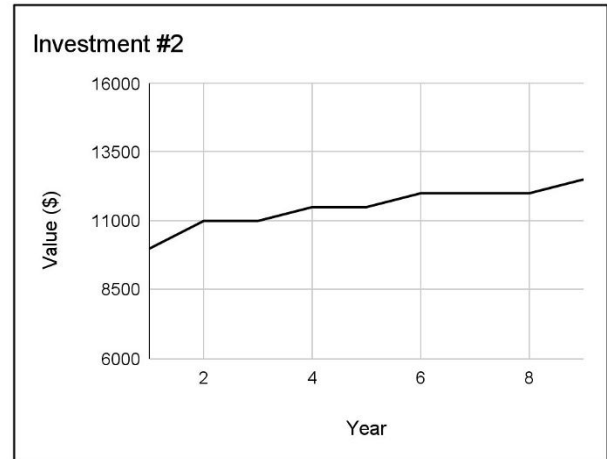
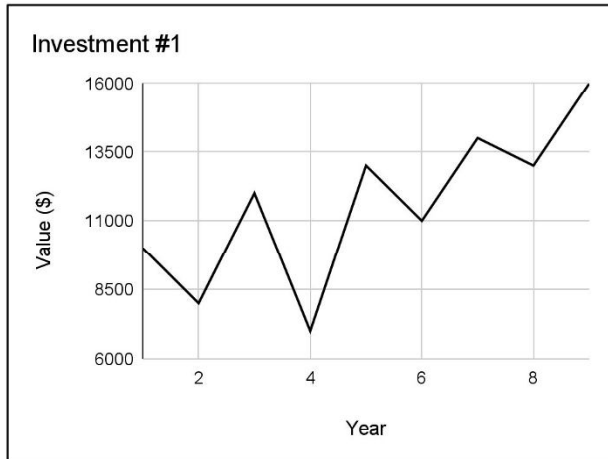
Name:

Date:

APPRECIATION AND DEPRECIATION

Investments

Compare the two different investments and answer the questions below.



1. What is the first thing you notice when examining the two graphs?

2. What was the amount and duration of the investment?

3. Which investment was more successful at the end of the term?

4. Which investment is more volatile (risky)? Why do you think this?

5. Which investment do you think would be a wiser short-term investment? Which investment do you think would be a wiser long-term investment? Explain your reasoning.

Name:

Date:

DOWN PAYMENTS

A **down payment** is initial money paid upfront when making an expensive purchase, like a house or a car. For these expensive payments, buyers typically take out a loan to pay the remainder of the value after paying a down payment.

The higher the down payment, the less the buyer will need to take as a loan to finish paying off the purchase. A higher down payment will also lower monthly payments. Depending on the purchase, a lender may require a down payment as low as 0% or as high as 50%.

Example

A house costs \$650k. The buyer will put 15% down.

Convert the percentage into a decimal. $15\% = 0.15$

$$650\,000 \times 0.15 = 97\,500$$

The down payment will be \$97 500.



Banks often require a minimum down payment of 20% on homes that are priced above \$1 million. Why do you think this is the case?

Describe one benefit and one drawback of making a large down payment on a purchase (e.g. a house).

Name:

Date:

DOWN PAYMENTS

Calculation Practice

Calculate the down payment for each scenario.

1. A house is priced at \$990k. The buyer wants to put 15% down. How much money will they pay for the down payment?
 2. A new car costs four payments of \$20k. A buyer has a \$15k down payment they can use toward the first payment. What percentage of the total value of the car will be paid off? How much more will they still have to pay?
 3. A house is priced at \$770k. The buyer wants to put 20% down. How much money will they pay for the down payment?
 4. A new car costs \$60k. A buyer has a \$12k down payment. What percentage of the car will be paid off? How much more will they still have to pay?
- cc