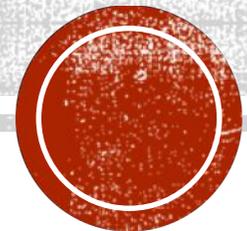


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# **Math 9 Finance Project**

**Due: In class  
November 28th**



# 1. Your Job

## Step One: You get a job in Vancouver.

This will be done randomly in class.

- McDonald's worker
- First Year Teacher
- Garbage Collector
- Registered Nurse
- Retail Sales Associate
- Amazon.ca entry level position
- Tree Planter
- Vancouver Parks Board
- Real Estate Agent
- Construction Worker



## 2. Your Income

### Step Two: Calculate Your Income

- a) Find your gross annual income. Calculate your yearly deductions <https://simpletax.ca/calculator> and then find your net annual income.
- b) Using the fact there are 12 months in a year, use your gross annual income, deductions and net annual income to find your monthly totals.
- c) Calculate your net pay-cheque if you were to get paid biweekly (every 2 weeks). Calculate your net pay-cheque if you were to get paid semi-monthly.
- c) Show in your report:  
gross annual income, yearly deductions, net yearly income, gross monthly income, monthly deductions, net monthly income, biweekly pay-cheque, semi-monthly pay-cheque.

Include all work necessary for calculations.



# 3. Housing (renting)

## **Step Three: Housing**

- a) The general recommendation is to spend no more than 45% of your net monthly income (after taxes) on rent. So find your maximum amount for rent and then go onto Craigslist and find a place to rent in the lower mainland that is in your budget. You must print out the listing which shows all the details of your place.
- Questions to check:
- Does your rent include any of your utilities (internet, hydro, cable)? If so, make sure to reflect this in your budget (i.e. if your rent includes Wi-Fi, then in your budget you would put \$0/INCL for Wi-Fi).
- b) Discuss the criteria you used to choose your place. Possible criteria are location, size, walkability, apartment vs basement suite, building facilities etc. Keep in mind where you live affects how you get to work!



# 3. Housing (buying)

## Step Three: Housing continued

- c) Take the amount you are paying in rent, and go to the mortgage calculator to find out the maximum price of buying a place you could achieve with the same payment.
- Mortgage Calculator: <https://tinyurl.com/y9effvdq>  
(Or search “government of Canada mortgage calculator)
- Assume 4% interest, 25 year amortization, monthly payments, 5 year term, no prepayment. (*You will have to guess and check different mortgage starting amounts and then see the monthly payment.*)
- Report the maximum house price in your report. Then go find a property **somewhere in BC** (not necessarily in Vancouver) that you could afford to buy. I used this website: <https://www.rew.ca/properties/areas/vancouver-bc>
- Include reasons for choosing this property and location. Print out that listing and then research online or talk to parents/relatives/friends and discuss the pros and cons of renting vs buying. Include 3-5 pros and cons of each in your discussion of whether to rent or buy. For the report, assume you are renting for your budget



# 4. Set up a Budget

## Step Four: Set up a Budget

- a) Do a budget. Must include necessary costs, 15% of net monthly income for savings and 5% of net monthly income for donations. Then discuss and decide on optional costs.
- Necessary items:  
house, transportation, grooming, food, telecom (phone, Wi-Fi), utilities, etc. From our practice budget in class and discussions with parents, include all the necessary items you need in your budget. For optional costs, choose what is most important to you and discuss why you included those items.
- b) Do some research (friends, relatives, internet, etc.) to find out reasonable amounts you would expect to pay for each item on your budget as someone living in the place you have selected (houses and apartments have different expenses).
- **Include information about how you estimated the costs for ALL items in your budget (especially for variable cost items).**



# 5. Present Budget

## Step Five: Present Your Budget

- a) Present your budget in a table, including \$ amounts and another column for % of your budget. See below for example.

Net Monthly Income	\$2000	100%
Rent	\$800	40%
Food	\$600	30%
Transportation	\$200	10%
Etc.		

- b) Present your budget information in a pie graph. This can be done efficiently using a spreadsheet or online using <https://www.meta-chart.com/pie>
- c) Decide who/where you will give your donation money to. Explain your decision.
- d) Reflect on your budget, do you have enough to live the way you want, or do you need more – explore other income sources.



# 6. Investments

## Step Six: Investments

- Invest your money. Take the total savings for the year and use this to be your principal.
- Go and find **three** options to invest it for a 10 year period and calculate future value using compound interest.
- Show your calculations either using formulas or a spreadsheet. Possible options are GIC, Term Deposit, Mutual Funds and you can look at different banks/credit unions.
- In your report, EXPLAIN why the different investments you selected had different interest rates. You can find this information online, or better yet, go into a bank or credit union and ask them to explain the differences.
- Include where you find each investment option and the details you are using for your calculations. Finally compare and comment on the results of the **three** different scenarios.



# 7. Conclusions

- a) Write a conclusion to your project explaining what your group has learned from doing it. (at least 1 paragraph)
- b) Do an individual self-assessment and group assessment (Will be done in class).
- c) Hand in completed checklist along with project. Due Nov 28th. You get to choose the format for your project (PowerPoint, written report, poster, etc.).

