

1. List some monthly bills and describe ways to save money on each of them.
 - a. Rent

 - b. Utilities

 - c. Internet / TV

 - d. Food

 - e. Clothes / entertainment

 - f. Insurance

2. How much would you earn in a month after taxes if you work a full-time job at \$25 per hour?

3. Based on the net monthly income in the question above, how much would you be able to save each month (assume the monthly cost of living is \$2400 for a single bedroom living space)
 - a. Living by yourself?

 - b. Can you afford to live in a two-bedroom location by yourself? (research the price difference between a one vs. two-bedroom rental suite)

 - c. As a rule of thumb, up to what percent of your income should be spent on housing (rent, utilities, etc.)?

4. Suppose you work 8 hours a day and 5 days a week and make \$35 per hour. If there are 4 weeks in a month, how much housing can you afford each month? Assume you can spend 30% of your gross pay on housing.

5. You manage to invest a million dollars by the time you retire. If your investments are in a 5% GIC (guaranteed rate) how much do you earn in interest each year?

6. You finish your Ph. D. with \$200,000 in student loans. If your annual student loan interest rate is 10%:
 - a. How much do you have to pay each year in interest alone?

 - b. If you pay this interest amount, how many years will it take for your to pay off your student loans?

7. Provide a scenario in which a billionaire can quickly go broke. See Bill Hwang documentary.

8. You are a top 3% Youtuber and with your 1.4 million views each month, you make \$17,000 each year in advertising income.
 - a. If you are taxed at a rate of 8%, estimate your daily budget.

 - b. Is your channel worth the effort if it makes you less than one-third the median household income?

9. Your turn: You want to buy a pair of shoes that cost \$200. But they are on sale for 60% off! How much do they cost after 12% taxes?

10. You owe \$100,000 in student loans but have paid off half of your \$40,000 car. You have \$5000 in credit card debt but have \$15000 in the bank. What is your net worth?

11. Your family restaurant bill comes out to be \$200. Taxes is 12%. You decide to tip 15%. How much do you end up paying in total?

12. Your turn: What is the best deal?
Deal A: Pay \$500 for a phone and pay \$20 per month for 24 months
Deal B: Pay \$0 but pay \$40 per month for 24 months
Deal C: Pay \$1000 for the phone with no monthly payments
13. What is the growth shape of unpaid debt over time?
14. What is the growth shape of money invested over time?
15. Suppose you have \$50,000 in student loans. The annual interest rate is 10%.
- How much does your debt grow by in 1 year?
 - If you pay this “debt growth” amount each year, how many years will it take to pay off your \$50,000 student loan?
16. You have \$100,000 in investments and \$100,000 in student loans.
- What is your net worth?
 - Why should you pay off your student loans?
17. Enrichment: If you invest two Starbucks drinks a day (each drink \$7) how much does your investment grow to be in 50 years (8% interest rate) according to the “get smarter about money compound interest calculator”?
18. You borrow \$10,000 for 3 years at 10% interest.
- Use the simple interest formula $I = P \times r \times t$ to roughly estimate how much you owe in 3 years.
 - Now recalculate the new interest at the end of each year. How much do you need to pay at the end of 3 years?

19. Being desperate for cash you borrow \$1000 from a Payday Loan company. Each year they charge 500% annual interest. How much does your debt grow to be in 3 years?

20. You owe \$100,000 in student loans. Suppose the interest rate is 10%

a. How much do you owe at the end of year 1?

b. How much do you owe at the end of year 2?

c. Use the simple interest formula $I = P \times r \times t$ to calculate how much you owe after 10 years without paying off the \$5000 initial balance.

d. Challenge: In reality, how much will you owe after 10 years?

Hint: $A = P \left(1 + \frac{i}{n}\right)^{nt}$ $n = 365$ (interest is compounded daily)

21. Suppose you invest in mutual funds that average 7.5% annual growth. You pay the average Canadian MER fee of 2.5%. How much does your \$10,000 investment grow to be in 3 years?