

Project 1 CPI Slide set

The objective of this project is to learn more about using CPI as a measure of inflation in Canada and what it means for the cost of living today.

Slide 1: Title slide (Name, Date, Course, Topic, perhaps a relevant image).

Slide 2: Explain in your own words what is meant by CPI

Slide 3: Give an example of how to read the rings of the pie chart

Slide 4: Give an example of how to use the 'Indicator, Price change' tab

Slide 5: Give an example of how to use the 'Indicator, Basket weight (%)' tab

Slide 6: Give an example of how to use the Percentage change 12-month tab

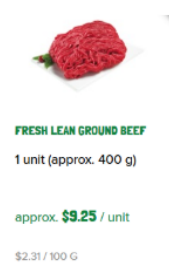
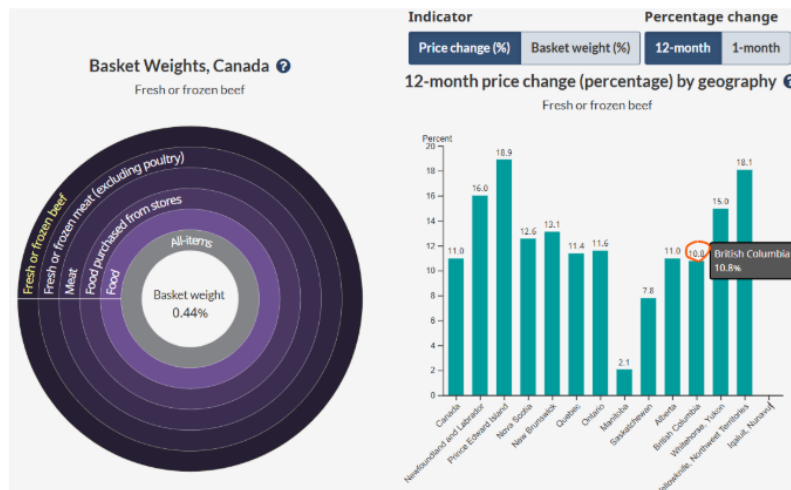
Slide 7: Give an example of how to use the Percentage change 1-month tab

Slide 8,9,10: Give three real time examples of inflation, example below.

Slide 11: Reflection: Explain how understanding CPI develops a sense of how mathematics helps us understand ourselves and the world around us.

Slide 12: Sources. Please list your sources using a format you already know (APA, Chicago, MLA)

Example of inflation:



In BC, the price of fresh beef increased by 10.8%.

The current price of a 400g packet of fresh beef is \$9.95.

If this packet has increased by 10.8%, it would have cost \$8.35 one year ago.

Calculation:

$$9.95 \div 1.108 \times 100 = 8.35$$

Project 2 Wealth Disparity Slide Set

The objective of this project is to learn more about wealth disparity in Canada and how various parties attempt to redistribute wealth through governance.

Slide 1: Title slide (Name, Date, Course, Topic, perhaps a relevant image).

Slide 2: Explain the Gini Index and where Canada is on the list of nation states ranked by Gini Index.

Slide 3: Choose and describe the story of two or three of the graphs on <https://themeasureofaplan.com/canadian-savings/>

Slide 4: Choose either property transfer tax brackets or income tax brackets. Create an example to demonstrate how progressive taxation is a tool for redistributing wealth. Show your calculations.

Slide 5&6: Choose at least two or as many as you like political parties to research 'how does ... party plan to redistribute wealth in Canada'. Use the AI summary as a guide but only quote from the party's website. Keep your tone neutral. (Conservative, Green, Liberal, NDP)

Slide 7: Browse <https://www.oxfam.ca/publication/canadas-wealth-inequality-report/> and report on your findings.

Slide 8: Reflection: Explain how understanding wealth inequality develops a sense of how mathematics helps us understand ourselves and the world around us. Give your opinion on what you have read and reported on.

Slide 9: Sources. Please list your sources using a format you already know (APA, Chicago, MLA)



Project 3 Mortgages Slide Set

The objective of this project is to demonstrate understanding of mortgage mathematics.

Revisit the Michael and Mariam case on page 28 and develop their financial profile as follows.

Slide 1: Title slide (Name, Date, Course, Topic, perhaps a relevant image).

Slide 2: Find or create an Avatar for Michael and Mariam with their employment. They have been working for 10 years and both earn the median income for their work.

Choose a field of work for them here: <https://noc.esdc.gc.ca/Structure/Hierarchy>

Search that field (first digit in the number) in this wage information page to find a job title:
<https://www.jobbank.gc.ca/wagereport/location/39071>

Slide 3: Use 'hourly wage $\times$ 2000/12' to estimate a gross monthly salary. Calculate 30% of their gross income to determine a maximum mortgage payment. Show your calculations.

Slide 4: They have \$200,000 downpayment and they find a lender who will give them a mortgage for 3.5% APR compounded monthly. Determine a maximum purchase price for Michael and Mariam and explain how you arrived at that number.

Slide 5: Find them a nice waterfront property in BC that they can afford.

Slide 6: Take a screenshot of the loan summary. Explain what the details mean for Michael and Mariam.

Slide 7: Take a screenshot of the first year of the amortization. Explain what the details mean for Michael and Mariam. the amortization.

Slide 8: What is their mortgage balance after 60 months (5 years) if nothing changes? What is their mortgage balance after 60 months if they make an additional payment of \$200 each month.

Slide 9: Reflect: Explain how understanding mortgages develops a sense of how mathematics helps us understand ourselves and the world around us.

Slide 10: Sources. Please list your sources using a format you already know (APA, Chicago, MLA)

