PRE-CALCULUS 11

Seminar Notes
Learning Guides 1 & 2

FINANCIAL LITERACY

Frances Kelsey Secondary School – 2019/20

"Financial Literacy"

Find Worksheet #1 in your Resource Package (Worksheets)

Show PowerPoint Presentation and fill in Worksheet #1

"Simple & Compound Interest"

Show PowerPoint Presentation and fill in the following prompts and questions.

Problem Solving: Simple & Compound Interests

Simple interest: I=prt

EXAMPLE:

If you invest $3,000 at 5% for one year, how much will you make for the year?

Compound interest formula:

$$A = p\left(1+\frac{r}{n}\right)^{nt}$$

Compounding Period:

Compounded once a year:	**Compounding more than once a year:**
1. **Find the total amount in your account if you** **start with $750 at 7.5% interest for 30 months compounded annually.**	1. **Find the total amount in your account if you start with $750 at 7.5% interest compounded semi-annually for 2.5 years.**
2. **How much should you invest at 7% annually to have $200 after 5 years?**	2. **How much should you invest at 7% monthly to have $200 after 5 years?**

3. **If you put $100 in the bank at 4% interest compounded annually and leave it until you are 60, how much money will you have?**	3. **If you put $100 in the bank at 4% interest compounded quarterly and leave it until you are 60, how much money will you have?**
4. **What about a mutual fund that pays 10% interest compounded annually?**	4. **What about a mutual fund that pays 10% interest compounded monthly?**

IN CLASS CREDIT PROBLEMS

PROBLEM #1. - If you have a bank account whose principal= **$1000**, and your bank compounds the interest **semi-annually** (twice a year) at an interest rate of **5%,** how much money do you have in your account at the year's end?

PROBLEM #2 - If you start a bank account with **$10,000** and your bank compounds the interest **quarterly** at an interest rate of **8%**, how much money do you have at the end of 5 years? *(assume that you do not add or withdraw any money from the account)*

PROBLEM #3 – The first credit card that you got charges **12.49%** interest to its customers and compounds that interest **monthly.** Within one day of getting your first credit card, you max out the credit limit by spending **$1,200**. If you do not buy anything else on the card and you do not make any payments, how much money would you owe the company after **6 months**?

Now complete Worksheet #2

Topic 3 *Talk about "DEBT CONSOLIDATION" WORKSHEET*

***Load "EZ Financial Calculator" from App Store onto your phone**

Do "DEBT CONSOLIDATION" WORKSHEET#3

Topic 4

BUYING A HOUSE PROJECT
**PRESENT YOUR WORK USING PPT, KEYNOTE, PREZI OR OTHER ELEC FORMAT

A. Find a house you would like to buy through the Internet. Give a description below. Include purchase price and property taxes. ****Attach photo here*

B. Do some research to find a mortgage option. Describe the option you choose below.

C. Assume you pay the asking price, how much of a down payment do you need to make, based on 10%. How much do you need to borrow (the mortgage)?

    Down payment:
    Mortgage:

D. Calculate your monthly payments, based on a 25-year amortization period.

3.   How much interest do you pay over the 25 year period?

F.   Calculate your monthly payments, based on a 15-year amortization period.

5.   How much interest do you pay over the 15 year period?

4.   What are some ways you could afford the higher monthly payments, in order to save money in the long run?

***SEE EXAMPLE OF A FINISHED PROJECT

To get your mark for LG 1&2:
  ➢ Hand in all 3 Worksheets, stapled with a Green Slip
  ➢ Email to your teacher your "Buying a House Project"