**FINANCE PROJECT #2 – AMORTIZATION**

**NAME:**

**CLASS:**

**DATE**: June 16, 2019

**PART A – HOMES**

A1 Do you own, rent, or live with family?

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What are the pros and cons of your living situation?

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A2 When you “grow up”, do you want to own or rent?

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Why?

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A3 Go to <https://www.investopedia.com/articles/mortgages-real-estate/08/home-ownership.asp> and review. What are three benefits of home ownership?

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Which do you think is the biggest benefit?

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A4 Go to <https://www.investopedia.com/financial-edge/1112/reasons-renting-is-better-than-buying.aspx> and review. What are three benefits of renting?

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Which do you think is the biggest benefit?

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A5 When you graduate, what characteristics do you want your home to have?

# Bedrooms?

# Bathrooms?

Garage or Carport?

How many spaces?

Pool?

Diving or Play?

Spa?

Fireplace?

Location (zip codes)?

A6 Go to <https://www.moneyunder30.com/best-real-estate-websites> and research the various sites/apps. Which do you think is best?

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Why?

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A7 Using the site/app you identified in the previous step, try to find a home that meets most of the characteristics you listed above. How much does it cost? Insert a link to the house.

Site/App:

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Website URL:

**PART B – LOANS**

B1 There are 3 major types of loans: FHA, VA and Conventional. Research the web and give a brief description of each.

FHA:

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VA:

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Conventional:

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Website URL(s):

B2 What is the difference between “Fixed” and “Variable” in regards to home loans?

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Website URL:

B3 Go to <https://www.consumerfinance.gov/ask-cfpb/what-is-mortgage-insurance-and-how-does-it-work-en-1953/> and review. Describe the basics of mortgage insurance for the 3 major types of loans.

FHA:

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VA:

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Conventional:

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B4 What is significant about making a down payment of at least 20%?

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Website URL:

B5 What is meant by P&I and PITI in terms of mortgage payments?

P&I:

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Website URL:

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PITI:

Website URL:

B6 Go to <https://www.nerdwallet.com/blog/mortgages/online-mortgage-lenders/> and read the top of the page. Look at the different lenders and pick one that looks good to you. Find the interest rate for a 30 year fixed loan and a 15 year variable loan. Assume you are making a 20% down payment and that the home costs $200,000.

Company:

Website URL:

Toll Free Number:

30 year fixed rate:

15 year variable rate:

B7 Pick a local credit union. Go to their website or call them. Find the interest rate for a 30 year fixed loan and a 15 year variable loan. Assume you are making a 20% down payment and that the home costs $200,000.

Credit Union:

Website URL:

Toll Free Number:

30 year fixed rate:

15 year variable rate:

**PART C – BUILDING A 30 YEAR AMORTIZATION SCHEDULE**

For this part, you will need:

1. Price of house that you found in step A7
2. Interest Rates that you found in steps B6 and B7

C1 Open up the Excel file named Amortization Schedule. Only change fields in blue.

C2 Enter your name, class and date in cells A2, C2 and E2 on the sheet named “30 Year”.

C3 Enter the loan amount (assume 80% of the price of the house) (cell C5), the lowest **30** year fixed rate (that you found previously in steps B6 and B7) (cell C6), **30** for the term (i.e. length) of the loan (cell C7), and 12 for the number of compoundings (monthly) (cell C8). What is your payment (cell C10)?

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What do you notice about the values in the B Column?

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C4 What do you notice about the values in the C Column and the values in the D Column?

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In which Row are the values in the C Column and D Column almost equal?

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What is the significance of that Row (use “payment” and “balance” in your answer)?

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C4 Note what Payment # results in your balance reaching $0.00. Record the values in cells J13 and J14.

Payment #:

Sum of Interest Paid (cell J13):

Sum of Payments (cell J14):

C5 Change the extra monthly payment (cell J16) to $100. Note what Payment # results in your balance reaching $0.00 or just negative. Record the values in cells J13 and J14.

Payment #:

Sum of Interest Paid (cell J13):

Sum of Payments (cell J14):

C6 Describe the impact of adding $100 to your monthly payment. Be sure to compare the number of years it takes to pay off the loan, the sum of interest paid, and the sum of the payments with the values in step C4.

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**PART D – BUILDING A 15 YEAR AMORTIZATION SCHEDULE**

For this part, you will need:

1. Price of house that you found in step A7
2. Interest Rates that you found in steps B6 and B7

D1 Go the sheet named “15 Year”. Enter the lowest **15** year variable rate (that you found previously in steps B6 and B7) (cell C6), and **15** for the term (i.e. length) of the loan (cell C7). What is your payment (cell C10)? What was your payment for the 30 year case found previously in step C3. Comment on the difference.

15 Year Payment:

30 Year Payment (step C4):

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D2 Note what Payment # results in your balance reaching $0.00. Record the values in cells J13 and J14.

Payment #:

Sum of Interest Paid (cell J13):

Sum of Payments (cell J14):

D3 Compare and contrast the 30 year versus the 15 year cases.

30 Year Sum of Interest Paid (step C4):

15 Year Sum of Interest Paid (cell J13):

30 Year Sum of Payments (step C4):

15 Year Sum of Payments (cell J13):

D4 Based on the above, what would be your approach when buying a house? In your answer, be sure to address:

1) Fixed versus variable

2) Adding an extra monthly payment

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D5 Save your Excel spreadsheet and this Word document as firstname.lastname.amortization (different extensions), and email both files to me.