Annuity Project

Student Sample Due Date

4051 Holly Way

- 3 bed
- 2 and a half bath
- 2,023 sq. ft.
 \$319,000











http://www.realtor.com/realestateandhomes-detail/4051-Holly-Way_Doylestown_PA_18902_M30678-06321?row=2

Down Payment



319000 * .20 = 63800

(cost of house)*(20%)=(down payment)

• My down payment would be \$63,800. This would cause the amount of my house that needs to be financed to be \$255,200.

30 YEAR 3.500%

$$255200 = P \left[\frac{1 - (1 + .0029)^{-360}}{.0029} \right]$$

Structure 1

P = 1143.11
My monthly payments would be \$1,143.11.

- Total Interest
 - 1143.11 * 360 = 411519.60 255200 = 156319.60
 - (monthly payment)*(total payments)=(amount to pay)-(amount financed)=(interest)
- Total Amount Paid For the House
 - 63800 + 255200 + 156319.6 = 475319.6
 - (down payment)+(amount financed)+(interest)=(total amount paid)

20 YEAR 3.375%

$$255200 = P \left[\frac{1 - (1 + .0028)^{-240}}{.0028} \right]$$

P = 1461.76

• My monthly payments would be \$1,461.76.

- Total Interest
 - 1461.76 * 240 = 350822.4 255200 = 95622.4
 - (monthly payment)*(total payments)=(amount to pay)-(amount financed)=(interest)
- Total Amount Paid For the House
 - 63800 + 255200 + 95622.4 = 414622.4
 - (down payment)+(amount financed)+(interest)=(total amount paid)

15 YEAR 2.750%

$$255200 = P \left[\frac{1 - (1 + .0023)^{-180}}{.0023} \right]$$

P = 1733.06

• My monthly payments would be \$1,733.06.

- Total Interest
 - **1733.06** * 180 = 311950.80 255200 = 56750.80
 - (monthly payment)*(total payments)=(amount to pay)-(amount financed)=(interest)
- Total Amount Paid For the House
 - 63800 + 255200 + 56750.80 = 375750.8
 - (down payment)+(amount financed)+(interest)=(total amount paid)

Analysis Questions

- Structure 1 would cause my monthly payment to be the lowest at \$1143.11. Structure 2 is \$1461.76 and structure 3 is \$1733.06 which are both more expensive than structure 1.
- 2. Structure 3 would allow my interest to be the lowest at \$56750.80. Structure 1 is \$156319.60 and structure 2 is \$95622.40 which are both more expensive than structure 3.
- 3. Structure 3 would be the cheapest in regards to total amount paid for the house at \$375,750. Structure 1 is \$475319.60 and structure 2 is \$414622.4 which are both more expensive than structure 3

Fantasy Job

• My fantasy job would be sports manager. On average sports managers make around \$63,370 annually. This would allow their monthly take home pay to be \$5,280.83. After taxes, which takes around 25% of my monthly salary, this total would be \$3,939.17 per month

Tax	Payment
Salary per year	\$63,370
Monthly pay	\$5,280.83
Federal Taxes	\$715.25
Social Security	\$327.41
Medicare	\$76.57
State Tax	\$162.12
Local Tax	\$52.81
Emergency Services Tax	\$4.33
Unemployment	\$3.17
Actual Take Home Pay	\$3,939.17

http://www.allbusinessschools.com/business-careers/sports-management/salary/



Fantasy Analysis

• I would be able to purchase the house I chose on my salary because roughly 27% of my monthly pay will go towards my mortgage. Structure 3 would be the best option for me because although it has the most expensive monthly payments, I will be able to pay it off the fastest. At \$1733.06 a month this would take 33% of my monthly income and leave me with \$2206.11 a month after taxes. Since I am moving to the suburbs and buying a house with 3 bedrooms I will probably have or be having children so this mortgage plan allows me to have most of my payments done before I would have to start paying for my kids college. Also, I will have a husband who will be able to pay for part of the mortgage plan and allow a greater monthly income. In addition, structure 3 has the lowest total payment and the lowest interest.