Math in My Life

How to survive the financial obstacles of adulthood

Topics

Concept #1

Savings Account

How to save money

Concept #2

Loans

How to apply for loans

Concept #3

Retirement

How to create a retirement plan

Conclusion

Math in My Life

How did Math in Society help me prepare for the financial obstacles of adulthood?

Concept #1: Savings Account

My partner and I want to start saving for our future. We deposit $10,000 into an account paying 9% annual interest compounded monthly. We plan to save for 4 years while I'm in college.

My equation is:

FV= 10000(1+0.09/12) raised to 12(4)

FV= 10000(1.01) raised to 48

FV= 10000(1.71)

FV= 14,314.05

According to these calculations, we should have $14,314.05 in 4 years. That's a 41% increase!

FV = P (1+r/n) raised to nt

- FV = future value of the deposit

P = principal or amount of money deposited r = annual interest rate (in decimal form)

n = number of times compounded per year

t = time in years.

Concept #2: Loan

My partner wants to buy a new truck. He can afford $350 per month for a car payment. We plan on taking is a 6 year long plan at an interest rate of 5% compounded monthly. How expensive of a loan can we afford to get?

My equation is:

Po = 350 (1- (1+0.05/12) raised to -6(12))

divided by (0.05/12)

Po = 350 (1- (1.004) raised to -72))

Po = 350 (1-(0.74))

Po = 350 (0.26) divided by (0.05/12)

Po = 350 (62.09)

Po = 21731.5

According to these calculations, we should be able to afford a $21,731.50 loan for a new truck.

P (original) = d (1-(1+r/k) ('-nk') divided by (r/k)

D = payment

R = rate

K = compounding periods

N = years

Concept #3: Retirement

My partner and I want to set a retirement fund. We want to put $200 into a retirement account each month. This fund offers 6% interest.. How much will we have saved in 20 years?

My equation:

Pn = 200((1+ .06/12) raised to (20 x 12) -1) divided by (0.06/20)

Pn = 200 (1.005) raised to 240 -1)

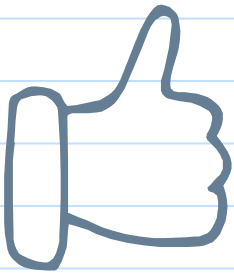
Pn = 200 (2.31)

Pn = 462.04 divided by 0.003

Pn = 154013.33

According to these calculations, we will have $154,013.33 for our retirement

Pn = d((1 + r/k) raised to (nk) -1) divided by (r/k)



D = payment

R = rate

K = compounding periods

N = years

Conclusion

Overall, it is clear that Math in My life will prepare me for some of the financial obstacles of my future. Before, I knew nothing about savings, loans, or retirement. I still have a lot to learn but I am more confident now. These skills will help me educate others as well!