

Pre-Calculus 11 - VLN

Chapter 7: Financial Literacy

Lesson 1: Compound Interest

Question #1

Reference Q.17760
You put \$8500 into a bank account that offers a 2.5% APR compounded monthly. How much is in the account after 5 years?

Question #2

Reference Q.17761
An investment opportunity offers 5% APR compounded weekly. If you invest \$12,500 for 7 years, how much will you have at the end?

Question #3

Reference Q.17762
You invest \$3000 with a stock management firm that promises a 7% APR compounded semi-annually if you invest with them for 3 years. How much are you promised to receive after 3 years?

Question #4

Reference Q.17763
What is a better deal:
Investing \$7000 in an investment that offers 4.5% APR compounded annually for 6 years **or** putting that same amount in an investment that offers 3.8% APR compounded daily?

Question #5

Reference Q.17764
How much do you need to invest in a management firm that offers a 6% APR compounded annually if after 5 years, you come away with \$10,500?

Question #6

Reference Q.17765
How much do you need to invest if at the end of an investment promising 5.1% APR compounded monthly you have at least \$20,000 to buy a new car. (Assume you've invested for 3 years)

Question #7

Reference Q.17766
If you need \$50,000 for a down payment on a house, how much do you need to invest in an account that promises 4.2% APR compounded weekly. If you only have 4 years to raise this down payment?

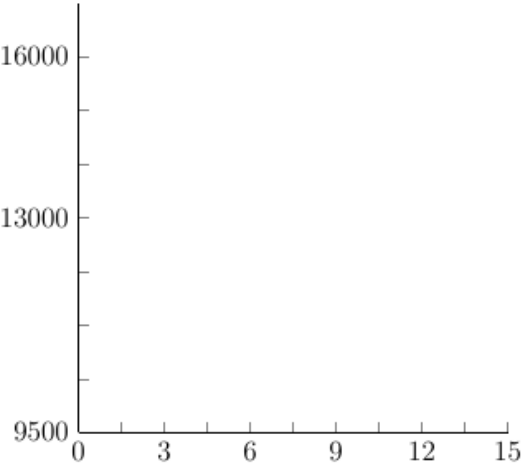
Question #8

Reference Q.17767
You want \$20,000 for a new car. How much do you need to invest in an account that offers 6% APR compounded semi-annually if you keep it in there for 15 years?

Question #9

Reference Q.17768
Fill out the table of values below given an investment opportunity that offers 3.2% APR compounded monthly. Then plot the points on a graph.

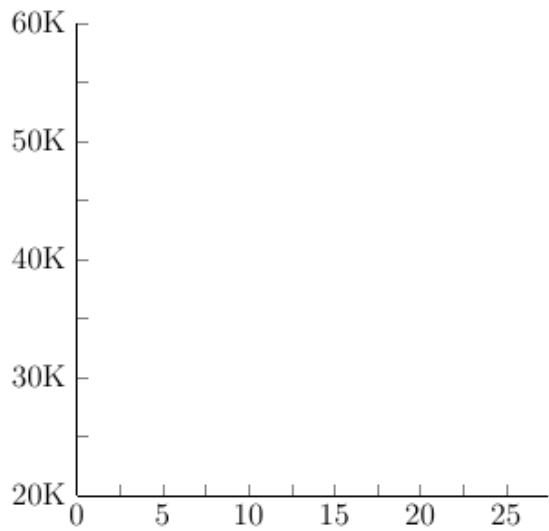
Year	Amount
0	\$9500
3	
6	
9	
12	
15	



🔗 **Question #10**

Reference Q.17769
Fill out the table of values below given on investment opportunity that offers 4.5% APR compounded weekly. Then, plot the points on a graph.

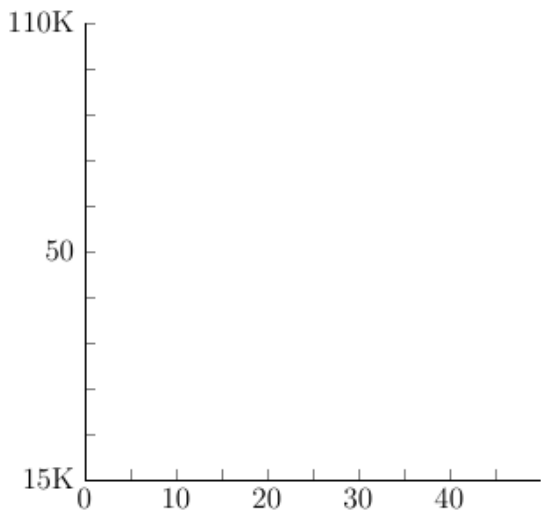
Year	Amount
0	\$20000
5	
10	
15	
20	
25	



🔗 **Question #11**

Reference Q.17770
Fill out the following table of values given on investment opportunity that offers 5% APR compounded semi-annually. Graph the points.

Year	Amount
0	\$15000
10	
20	
30	
40	

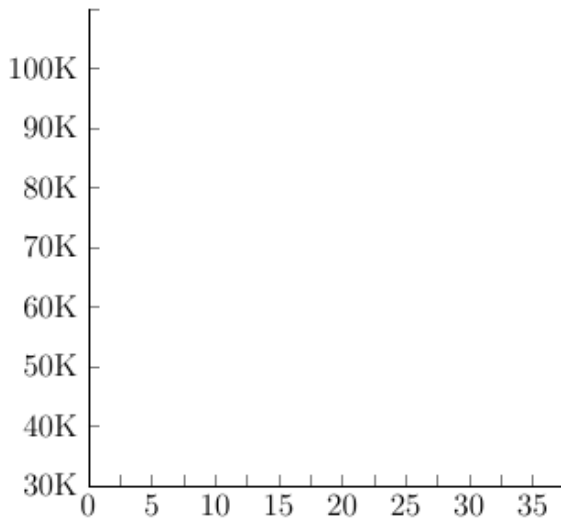


Question #12

Reference Q.17771

Graph the following table of values.

Year	Amount
0	\$30000
5	\$35700
10	\$42550
15	\$50675
20	\$60351
25	\$71875
30	\$85600
35	\$101940



Question #13

Reference Q.17772

Graph the following table of values.

Year	Amount
0	\$50000
10	\$61000
20	\$74440
30	\$90834
40	\$110835
50	\$135240
60	\$165000
70	\$201364
80	\$245700

Question #14

Reference Q.20433

Using a TVM Solver, determine the amount of money you would have after investing \$500 for 10 years at 6.8% yearly interest, compounded annually.

Question #15

Reference Q.20434

Using a TVM Solver, determine the amount of money you would have after investing \$1500 for 25 years at 4.1% yearly interest, compounded monthly.

Question #16

Reference Q.20435

Using a TVM Solver, determine the amount of money you would have after investing \$100 for 50 years at 5.5% yearly interest, compounded weekly.

Question #17

Reference Q.20436

Using a TVM Solver, determine how long you would have to invest \$450 at 2.2% yearly interest, compounded monthly, so that you would have \$800.

Question #18

Reference Q.20437

Using a TVM Solver, determine how long you would have to invest \$10,000 at 4% yearly interest, compounded daily, so that you would double your money.

Question #19

Reference Q.20438

Using a TVM Solver, determine how many years you would need to increase your investment from \$4,500 to \$10,000 if you invested it at 3.9% yearly interest, compounded weekly.

Question #20

Reference Q.20439

Cars depreciate in value approximate 15-20% per year. If you purchased a car for \$20,000 and wanted to sell it again after five years, what is the best you could hope to sell it for according to market value?

Question #21

Reference Q.20440

A certain housing market predicts an appreciation value of 7% on your home per year. If you purchased your home for \$450,000, how much would it be worth after ten years?