

Name: _____

Date: _____

Period: _____

Fill in the table to show what you typed into the TVM solver (<https://www.geogebra.org/m/mvv2nus2>). Write your final answer in the provided blank. Round all values to 2 decimal places. Your final an

1. Every month you deposit \$230 into an annuity account. Find the balance after 10 years if the account pays 3.5% annual interest compounded monthly.

Variable	Value in This Situation
N	
I%	
PV	
PMT	
FV	
P/Y	
C/Y	
END or BEGIN	

Final Answer: _____

2. You deposit \$800 in an account that pays 9% annual interest. Find the balance after 16 years if the interest is compounded annually.

Variable	Value in This Situation
N	
I%	
PV	
PMT	
FV	
P/Y	
C/Y	
END or BEGIN	

Final Answer: _____

3. You want to have \$950,000 in 40 years when you retire. How much money would you need to invest now at the following interest rates to have this amount in the future?

- a. 5.6% per year compounded quarterly

Variable	Value in This Situation
N	
I%	
PV	
PMT	
FV	
P/Y	
C/Y	
END or BEGIN	

Final Answer: _____

- b. 6.3% per year compounded daily

Variable	Value in This Situation
N	
I%	
PV	
PMT	
FV	
P/Y	
C/Y	
END or BEGIN	

Final Answer: _____

4. Emilio wants to invest \$1500 in an account that pays 2.5% compounded monthly. How long will it take him, in years, to have \$3900?

Variable	Value in This Situation
N	
I%	
PV	
PMT	
FV	
P/Y	
C/Y	
END or BEGIN	

Final Answer: _____

5. Naomi used a store credit card to buy clothes, furniture, and appliances for her apartment. She currently owes \$4,500 and wants to pay it off over the next 4 years. The card has an 18.99% APR (annual percentage rate).

- a. What are the monthly payments?

Variable	Value in This Situation
N	
I%	
PV	
PMT	
FV	
P/Y	
C/Y	
END or BEGIN	

- b. How much will she pay in total to pay off this loan?

Final Answer: _____

6. Suppose that you have the following annuity investment options:

- a. **Option 1:** You can invest in an annuity, making \$50 monthly payments earning 10% interest.
 b. **Option 2:** You can make annual payments of \$500 into an annuity earning 9% interest compounded annually.

Find the value of each investment option after 5 years.

Option 1

Variable	Value in This Situation
N	
I%	
PV	
PMT	
FV	
P/Y	
C/Y	
END or BEGIN	

Option 2

Variable	Value in This Situation
N	
I%	
PV	
PMT	
FV	
P/Y	
C/Y	
END or BEGIN	

Answer: _____

Answer: _____

Which would be a better investment? **Explain.**

7. Suppose you took out a mortgage of \$210,000 to purchase a new home. The mortgage is for 12 years at 4.7% compounded monthly.

- a. What is the monthly payment amount for the loan?

Variable	Value in This Situation
N	
I%	
PV	
PMT	
FV	
P/Y	
C/Y	
END or BEGIN	

- b. What is the difference between how much you actually end up paying for this mortgage vs. the original cost of the mortgage?

Final Answer: _____

8. The AMDM teachers are finally ready to buy a RV to quit teaching and travel the world. They are trying to decide whether to purchase or lease the RV. The RV has a sticker price of \$78,500.

- a. The credit union offers a 3-year car loan at 2.9% annual percentage rate (APR) with \$0 down payment. Find the monthly payment with the loan.

Credit Union Loan

Variable	Value in This Situation
N	
I%	
PV	
PMT	
FV	
P/Y	
C/Y	
END or BEGIN	

Final Answer: _____

- b. How much will the **total cost** of the RV be if the teachers take this loan?

- c. The dealership offers a 3-year lease at \$955 a month. The lease has a balloon payment of \$1000 at the end of the three years. What is the total cost of the lease?

Lease

Variable	Value in This Situation
N	
I%	
PV	
PMT	
FV	
P/Y	
C/Y	
END or BEGIN	

Final Answer: _____

- d. What interest rate will the teachers be charged if they lease the RV? Assume the RV is worth 48,420 after 3 years.