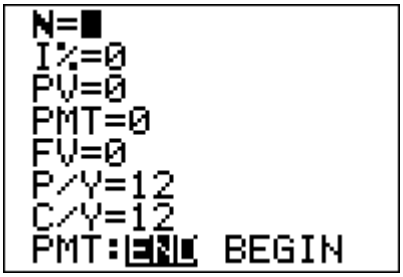
Buying a car!

You plan to purchase a new car but need to make a decision about financing. The car costs $25,000. Financing options are: 1.9% for 36 months or 2.9% for 48 months, and 3.9% for 60 months. What is the total cost of the car under each option?

To find the monthly payment, press APPS, select 1:Finance, select 1:TVM Solver



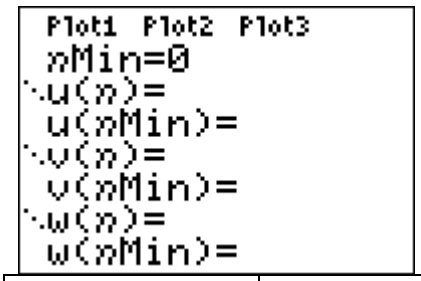
N = Number of monthly payments
I% = Annual percentage rate
PV = Present Value (the amount you are borrowing or investing)
PMT = Payment
FV = Future Value
P/Y = Number of payments per year
C/Y = Number of compoundings per year

After you have put in the values for N, I% and PV you can solve for your payment by pressing ALPHA ENTER.

	1.9% for 36 months	2.9% for 48 months	3.9% for 60 months
Monthly payment			
Total paid over life of loan			

Now suppose you actually have the $25,000 in the bank and there is a $3000 rebate for cash. You could either pay cash or leave the money in the bank and draw from that account each month to make your car payment. Suppose the account pays an annual rate of 2.5%. What should you do?

You can find the answer by calculating the net amount paid in each case. Use the sequence menu to find the amount remaining in your account at the end of each loan. Define $u_n = u_{n-1}(1 + r/12)$ – monthly payment and u_{nMin} = original loan amount. Then complete the table to compare actual costs. Don't forget to compare to the **cash option**.



	1.9% for 36 months	2.9% for 48 months	3.9% for 60 months
Amount in account at end of loan period			
Net cost			

What if the savings account pays an annual rate of 5%? Recalculate to determine if your decision is now the same.

	1.9% for 36 months	2.9% for 48 months	3.9% for 60 months
Amount in account at end of loan period			
Net cost			

Summarize the results.

What valuable life lesson(s) did you learn from this exercise?