MA 110 WORKSHEET (3.4)

Name ____Solutions_____

1. You have decided to buy a new stereo system for $2,500 and agreed to pay in 30 equal quarterly payments at 5% interest compounded quarterly on the unpaid balance. How much are your payments? Fill in the TVM Solver table and write your answer in sentence form.

N =	30
I% =	5
PV =	2500
PMT =	0 Alpha Solve
	-100.45
FV =	0
P/Y =	4
C/Y =	4

Monthly payments are $100.45 per quarter.

2. You have purchased a new house and have a mortgage for $70,000 at 9% compounded monthly. The mortgage will be repaid in equal monthly payments of $629.81. How many years will it take to pay off the mortgage? Fill in the TVM Solver table and write your answer in sentence form.

N = 0 Alpha Solve   240.00
I% = 9
PV = 70000
PMT = -629.81
FV = 0
P/Y = 12
C/Y = 12

It will take 240/12 = 20 years to pay off the mortgage.

Find the total amount paid in interest when the mortgage is paid off. You don't need the TVM Solver for this – just "plain old arithmetic" will give you the answer. Use your common sense and determine the answer.

Total payments = 629.81*240 = 151,154.4

151,154.4 – 70,000 = $81,154.40 in interest