**NAME\_\_\_\_­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_**

**Time Value of Money Formulas**

**HOMEWORK # 8**

|  |  |
| --- | --- |
|  | |
|  |  |
|  |  |
|  |  |
|  | | |  |
|  | | |  |
|  |  |
|  |  |

FVAt = PMT[(1+{r/12}^t(12)})-1]/(r/12)

PVA = PMT[[1-{1/{1+(r/12)}^{t(12)}]/(r/12)]

Using the formulas above, calculate the following

1) You just bought a house and your MONTHLY payments are $2,779.16 which you got a loan from your local bank at a rate of 4.5% annually for 25 years. How much did you pay for the house? Round to the nearest DOLLAR.

a) $500,000

b) $399,000

c) $450,000

d) $575,000

2) You just bought a car and your MONTHLY payments are $711.45 which you got a loan from your local bank at a rate of 6.5% annually for 4 years. How much did you pay for the car? Round to the nearest DOLLAR.

a) $33,750

b) $28,500

c) $30,000

d) $25,000

3) You just bought a yacht and your MONTHLY payments are $3,662.55 which you got a loan from your local bank at a rate of 9% annually for 8 years. How much did you pay for the yacht? Round to the nearest DOLLAR.

a) $300,000

b) $200,00

c) $275,000

d) $250,000

4) You want to retire in 10 years and you can afford to put $4,622.01 MONTHLY in to an investment account for 10 years and you can get 7% from the investment account, How much money will you have accumulated to retire after the 10 year period? Round to the nearest DOLLAR.

a) $900,000

b) $750,000

c) $800,000

d) $700,000