

## PROBLEMS (6 Points Each)

1. Complete an amortization schedule for the following loan. The loan amount is \$100,000 at 12.0% interest, amortized on a yearly basis for five (5) years.

2. Given the following:

Number of Units	150	Operating Expenses	\$800,000
Vacancy Rate	5%	Collection Loss	2%
Monthly Rent	\$1,000	Debt Service	\$360,000

Calculate on an Annual Basis:  
(There are no negative numbers in this answer)

- a. What is the Potential Gross Income (PGI)?
- b. What is the Effective Gross Income (EGI)?
- c. What is the Net Operating Income (NOI)?
- d. What is the Before Tax Cash Flow (BTCF)?
- e. Utilizing a capitalization rate of 9.5%, what is the estimated value of the property?

3. You are considering investing in a real estate project. Your one ownership unit would cost \$30,000. The project is expected to generate annual cash flows of: \$4,500 in year 1, \$5,000 in years 2-5, \$8,000 in year 6 and \$19,000 in year 7. You require a rate of return of 11.0%. What is the net present value (NPV) of this investment? Should you invest in this deal? Why or why not?

4. What is the future value of an investment of \$1,000 paid every year for five (5) years when the funds are invested at the end of the year at a rate of 12%?

5. Given the following for a retail property:  
This property is occupied by a single tenant:

Net Rentable Space	10,000 sq. ft.
Lease Rate	\$16.00 per sq. ft. per year
Real Estate Taxes	\$1.75 per sq. ft. per year
Operating Expenses	\$0.55 per sq. ft. per year
Insurance	\$0.06 per sq. ft. per year
Base Sales Amount in Lease	\$2,000,000
Actual Sales	\$2,400,000
Percentage Lease Clause	4.0%

What is the amount of rent due on a per sq. ft. basis (per year) if the tenant has a double net (NN) lease and a "percentage lease clause" in the lease?