

Financial Calculating

Financial calculators make all the difference!

N = Time (financial calculating is all about time)

I = Rate (we either pay a rate or earn a rate)

PV = Present Value (money today)

PMT = Payment (making or receiving & how often)

FV = Future Value (money in the future)

If you have three out of five above you can solve your financial question

Sometimes projections are all you have

Sample Problems: Compounding and Discounting

- If property values increased at 10% per year and you paid \$600,000 today what would it be worth in 5 years?
- How much would you have to invest monthly at an 8% annual return compounded monthly in order to have \$60,000 in 5 years?
- If you invested \$750 per month for the next thirty years at an 8.5% annual rate how much would you have at the end?
- What are the monthly payments necessary to amortize \$100,000 over a thirty year term at 8.5%?
- If you have \$2,250 per month available to pay for a home loan and the rates are 4% per annum for a thirty year term, How much can you borrow?

Sample Problems: Compounding and Discounting

- How much would you pay today for a note that pays you \$5,000 per month for the next ten years plus \$1,000,000 at the end to earn a 9% yield?
- How much would you have today if you found an old family savings passbook from 1805 (200 years ago) with a balance of \$750 and an interest rate of 3.5%?
- If you invest \$5,000 today and \$500 per month for the next ten years then receive \$500,000 at the end, what was your rate of return?
- How much would you pay for a cash flow of \$10,000 per year for the next 5 years plus \$50,000 at the end assuming you require a 12% return?

Investment Cash Flows

Year End	A	B	C	D	E
1	\$1,627.45	0	\$1,000	\$1,000 each	0
2	\$1,627.45	0	\$1,000	Year in	0
3	\$1,627.45	0	\$1,000	Perpetuity	0
4	\$1,627.45	0	\$1,000		0
5	\$1,627.45	\$16,105.10	\$1,000		0
6	\$1,627.45	0	\$1,000		0
7	\$1,627.45	0	\$1,000		0
8	\$1,627.45	0	\$1,000		0
9	\$1,627.45	0	\$1,000		0
10	\$1,627.45	0	\$11,000		\$25,937.42
Total Receipts	\$16,274.50	\$16,105.10	\$20,000		\$25,937.42