Practice Problems

CATEGORY: HP12c

TOPIC: CALCULATE VALUE BY DCF

Problem 1 – Solve for the value of the subject property by using yield capitalization (discounted cash flow analysis) if the discount rate (yield rate) is 8%.

YEAR	NOI	REVERSION	CASH FLOW
1	$40,000		$40,000
2	$41,800		$41,800
3	$43,000		$43,000
4	$47,250		$47,250
5	$49,000		$49,000
6	$50,600		$50,600
7	$51,775	$100,000	$151,775

Problem Solution – NEXT PAGE

Practice Problems

APPRAISAL
TOOLBOX
EDUCATIONAL RESOURCES, ROBUST TOOLS & MORE

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Problem Solution

KEYSTROKES				DISPLAY	COMMENTS
	f	CLX		0.00	Clear calculator registers
40000	g	CF$_j$	(PMT key)	40,000.00	Enter Year 1 cash flow
41800	g	CF$_j$		41,800.00	Enter Year 2 cash flow
43000	g	CF$_j$		43,000.00	Enter Year 3 cash flow
47250	g	CF$_j$		47,250.00	Enter Year 4 cash flow
49000	g	CF$_j$		49,000.00	Enter Year 5 cash flow
50600	g	CF$_j$		50,600.00	Enter Year 6 cash flow
151775	g	CF$_j$		151,775.00	Enter Year 7 cash flow (the sum of the NOI and the reversion)
8	i			8.00	Enter the discount rate (yield rate) for the investment
	f	NPV	(PV key)	295,533.16	Calculates the present value of the cash flows

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Problem 2 – A property is leased for 5 years with first year NOI of $50,000 and annual increases in rent of 3% (compounded). The reversion is $82,000 and the discount rate is 12%. What is the value of the property indicated by DCF?

Problem Solution – NEXT PAGE

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Problem Solution

KEYSTROKES				DISPLAY	COMMENTS
	f	CLX		0.00	*Clear calculator registers*
50000	g	CF$_j$	(PMT key)	50,000.00	*Enter Year 1 cash flow*
3	%	+		51,500.00	*Adds 3% to previous year's income*
	g	CF$_j$		51,500.00	*Enters Year 2 cash flow*
3	%	+		53,045.00	*Adds 3% to previous year's income*
	g	CF$_j$		53,045.00	*Enters Year 3 cash flow*
3	%	+		54,636.35	*Adds 3% to previous year's income*
	g	CF$_j$		54,636.35	*Enters Year 4 cash flow*
3	%	+		56,275.44	*Adds 3% to previous year's income*
82000	+			138,275.44	*Add the value of the reversion to the final year's cash flow*
	g	CF$_j$		138,275.44	*Enters Year 5 cash flow*
12	i			12.00	*Enter the discount rate (yield rate) for the investment*
	f	NPV	(PV key)	236,638.31	*Calculates the present value of the cash flows*