

Calculator steps for Chapter 8 Study Questions Answers (text pp.851-852, questions on pp.175-179)

NOTE: Not all steps need to be repeated in every problem. Calculator registers retain prior values until changed, and default settings even after calculator is turned off.

Ch.8 Practice Problem #2. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
1 P/YR	1 n
1 N	11 i
11 I/YR	14000 FV
0 PMT	PV gives 12612.61
14000 FV	
PV gives 12612.61	

Ch.8 Practice Problem #4. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
1 P/YR	2 n
2 N	11 i
11 I/YR	14000 FV
0 PMT	PV gives 11362.71
14000 FV	
PV gives 11362.71	

Ch.8 Practice Problem #6. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
1 P/YR	2 n
2 N	11 i

11 I/YR	25000 PV
25000 PV	FV gives 30802.5
0 PMT	
FV gives 30802.5	

Ch.8 Practice Problem #8. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
12 P/YR	11 g i
12 N	1 g n
11 I/YR	14000 FV
0 PMT	PV gives 12547.96
14000 FV	
PV gives 12547.96	

Ch.8 Practice Problem #10. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
12 P/YR	11 g i
24 N	2 g n
11 I/YR	25000 PV
0 PMT	FV gives 31120.71
25000 PV	
FV gives 31120.71	

Ch.8 Practice Problem #12. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
12 P/YR	6.5 g i
6.5 I/YR	1 g n
EFF% gives 6.70	100 CHS PV
	FV gives 106.70
	RCL PV + gives 6.70

Ch.8 Practice Problem #14. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
2 P/YR	6.5 ENTER 2 ÷ i
6.5 I/YR	2 n
EFF% gives 6.61	100 CHS PV

	FV gives 106.61
	RCL PV + gives 6.61

Ch.8 Practice Problem #16. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
2 P/YR	6 ENTER 2 ÷ i
6 I/YR	2 n
EFF% gives 6.09	100 CHS PV
12 P/YR	FV gives 106.09
NOM% gives 5.93	12 n
	i 12 X gives 5.93

Ch.8 Practice Problem #18. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
12 P/YR	6 g i
6 I/YR	1 g n
EFF% gives 6.17	100 CHS PV
2 P/YR	FV 106.17
NOM% gives 6.08	2 n
	i 2 X gives 6.08

Ch.8 Practice Problem #22. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
1 P/YR	7 n
7 N	40000 CHS PV
40000 +/- PV	100000 FV
0 PMT	I gives 13.99
100000 FV	
I/YR gives 13.99	

Ch.8 Practice Problem #24. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
12 P/YR	7 g n

84 N	40000 CHS PV
40000 +/- PV	100000 FV
0 PMT	I gives 1.10 ENTER
100000 FV	12 X gives 13.16
I/YR gives 13.16	

Ch.8 Practice Problem #28. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
1 P/YR	8 i
8 I/YR	20000 CHS PV
20000 +/- PV	0 PMT
0 PMT	40000 FV
40000 FV	n gives 10.00
N gives 9.01	Note: HP-12c rounds up to next whole period. Not as accurate.

Ch.8 Practice Problem #30. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
12 P/YR	8 g i
8 I/YR	20000 CHS PV
20000 +/- PV	40000 FV
0 PMT	n gives 105
40000 FV	12 ÷ gives 8.75
N gives 104.32	
÷12 gives 8.69	

Ch.8 Practice Problem #34. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
1 P/YR	8 n
8 N	7.5 i
7.5 I/YR	20000 PMT
20000 PMT	0 FV
0 FV	PV gives -117146.07
PV gives -117146.07	

Ch.8 Practice Problem #36. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
12 P/YR	7.5 g i
7.5 I/YR	1 g n
EFF% gives 7.76	100 CHS PV
1 P/YR	FV
8 N	RCL PV + gives 7.76
7.76 I/YR	7.76 i
20000 PMT	20000 PMT
0 FV	8 n
PV gives -115,972.41	PV gives -115,972.41

Ch.8 Practice Problem #38. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
12 P/YR	8 g n
96 N	7.5 g i
7.5 I/YR	1666.67 PMT
1666.67 PMT	0 FV
0 FV	PV gives -120043.61
PV gives -120043.61	

Ch.8 Practice Problem #40. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
12 P/YR	8 g n
96 N	7.5 g i
7.5 I/YR	1666.67 PMT
1666.67 PMT	90000 FV
90000 FV	PV gives -169528.98
PV gives -169528.98	

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Ch.8 Practice Problem #42. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
12 P/YR	30 g n
360 N	9 g i
9 I/YR	125000 PV
125000 PV	0 FV
0 FV	PMT gives -1005.78
PMT gives -1005.78	

Ch.8 Practice Problem #44. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
12 P/YR	8.75 g i
8.75 I/YR	100000 PV
100000 PV	750 CHS PMT
750 +/- PMT	0 FV
0 FV	n gives 494
N gives 493.24	Note: rounds up, not exact answer

Ch.8 Practice Problem #46. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
12 P/YR	g BEG
BEG/END (set to BEGIN)	7 g n
84 N	9 g i
9 I/YR	2500 PMT
2500 PMT	0 FV
0 FV	PV gives -156550.30
PV gives -156550.30	g END
BEG/END (toggle off BEG)	

Ch.8 Practice Problem #48. Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
12 P/YR	3 g n
36 N	5 g i
5 I/Y	0 PV
0 PV	4250000 FV
4250000 FV	PMT gives -109667.98
PMT gives -109667.98	

Ch.8 Practice Problem #50. Calculator steps below.

HP-10B	
CLEAR ALL, BEG/END=END	CLX
1 P/YR	5 n
5 N	10 i
10 I/Y	20 PMT
20 PMT	PV gives -75.82
PV gives -75.82	1.10 ENTER 1.05 ÷ 1 -
$1.10/1.05-1=.0476 \times 100=$	100 X gives 4.76
4.7619 I/Y	I
BEG/END = BEG	G BEG
PMT gives 16.61	PMT gives 16.61
X 1.1 = 18.27	1.1 X
CLEAR ALL, BEG/END=END	Gives 18.27

Ch.8 Practice Problem #52. Calculator steps below.

HP-10B	
CLEAR ALL, BEG/END=END	CLX
0.12 - 0.01 = 0.11	7.5 ENTER
1/x	0.12 ENTER 0.01 -
X 7.5	÷
Gives 68.18	Gives 68.18

Ch.8 Practice Problem #54(a). Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
1 P/YR	400000 CHS g CF0
400000 +/- CFj	35000 g CFj
35000 CFj	37000 g CFj
37000 CFj	45000 g CFj
45000 CFj	46000 g CFj
46000 CFj	40000 ENTER 450000 +
40000+450000=490000 CFj	Gives 490000 g CFj
12 I/YR	12 i
NPV gives 49.28	f NPV gives 49.28

Ch.8 Practice Problem #54(b). Calculator steps below.

HP-10B	HP-12C
CLEAR ALL	CLX
1 P/YR	375000 CHS g CF0
375000 +/- CFj	35000 g CFj
35000 CFj	37000 g CFj
37000 CFj	45000 g CFj
45000 CFj	46000 g CFj
46000 CFj	40000 ENTER 450000 +
40000+450000=490000 CFj	Gives 490000 g CFj
IRR gives 13.73%	f IRR gives 13.73%

Ch.8 Practice Problem #56.

\$46,325,963

Cap Rate = 8.09%