If you get the correct output for the practice problem (see below) you should have some confidence that your template is set up with the correct cell formulas. Then if you enter the correct figures in input value cells B4 to B20 (read the assignment!), your completed Excel® output should be ready to submit.

	A	B	C	D	E	F	G	H
1	**FIL 260 Spreadsheet Homework Problem 3: Real Estate Investment (based on practice input values)**							
2	Student Name							
3								
4	Total Property Purchase Price	**$6,450,000**		Owner's Equity Investment (Purchase Price - Loan)				$2,550,000
5	Land Value	**$1,440,000**						
6	Depreciable Life in Years (Rental Residential)	**27.5**		Depreciable Basis (Purchase Price - Land Value)				$5,010,000
7	Amount Borrowed on Loan	**$3,900,000**		Depreciation in Yr. 2, 3, or 4 ((Purch Price - Land)/Life)				$182,182
8	Loan Amortization Period in Years	**25**		Depreciation Yr. 1 or 5 (11.5/12 of Yr. 2 - 4 value)				$174,591
9	Annual Stated (APR) Interest Rate on Loan	**7.50%**						
10	Initial Monthly Rent per Unit	**$1,380**		Three years of depreciation, years 2 - 4			$546,545	
11	Number of Units	**44**		Two years of depreciation, years 1 & 5			$349,182	
12	Expected Annual Rent Percentage Increase	**2.80%**		Total depreciation claimed (recaptured under Sec. 1250)			$895,727	
13	Expected Annual Vacancy/Uncollectible Percentage	**4.60%**		Remaining book value at end of yr 5 (Purch Pr - Tot Depr):				$5,554,273
14	Operating Expense Percentage	**35.00%**						
15	Expected Resale Price	**$8,100,000**		Initial Annual Rent (monthly rent x 12 x # units)				$728,640
16	Expected Selling Expense Percentage	**6.00%**						
17	Investor's Required Return on Equity	**9.80%**		Loan Amortization Period in Months (# years x 12)				300
18	Investor's Ordinary Income Tax Rate	**34.00%**		Monthly Interest Rate on Loan (annual rate ÷ 12)				0.00625
19	Ordinary Capital Gain Tax Rate	**15.00%**		Monthly Loan Payment (from loan payment formula)				$28,821
20	Section 1250 Depreciation Recpature Tax Rate	**25.00%**		Annual Loan Payment Total (monthly payment x 12)				$345,848
21								
22	**Net Present Value (as computed below)**	**$204,939**	**Investment is acceptable since NPV is $0 or greater**					
23	**Internal Rate of Return (as computed below)**	**11.65%**	**Investment is acceptable since IRR is equal to or greater than required annual return**					
24								
25	**Loan to Value Ratio (L/V)**	**0.60**		**Initial Year's Debt Coverage Ratio (DCR)**		**1.31**		
26								
27	LOAN AMORTIZATION INFORMATION			Initial	Ending	Year's		
28			Ending	Principal	Principal	Total	Principal	Interest
29		Year	Month	Owed	Owed	Payment	Repaid	Paid
30		0	0		$3,900,000			
31		1	12	$3,900,000	$3,844,780	$345,848	$55,220	$290,627
32		2	24	$3,844,780	$3,785,272	$345,848	$59,507	$286,341
33		3	36	$3,785,272	$3,721,145	$345,848	$64,127	$281,721
34		4	48	$3,721,145	$3,652,040	$345,848	$69,105	$276,742
35		5	60	$3,652,040	$3,577,569	$345,848	$74,470	$271,378
36								
37	CAPITAL GAIN TAX			AFTER-TAX EQUITY REVERSION				
38	Gross Selling Price	$8,100,000		Gross Selling Price			$8,100,000	
39	Minus Selling Expense	$486,000		Minus Selling Expense			$486,000	
40	Equals Net Selling Price	$7,614,000		Equals Net Selling Price			$7,614,000	
41	Minus Remaining Book Value	$5,554,273		Minus Loan Payoff (see above)			$3,577,569	
42	Equals Capital Gain	$2,059,727		Equals Before-Tax Equity Reversion			$4,036,431	
43	Minus Section 1250 Depreciation Recapture	$895,727		Minus Capital Gain Tax			$398,532	
44	Ordinary Capital Gain	$1,164,000		Equals After-Tax Equity Reversion			$3,637,899	
45								
46	Tax on Section 1250 Depreciation Recapture	$223,932						
47	Tax on Ordinary Capital Gain	$174,600						
48	Total Tax on Capital Gain	$398,532						
49								
50	CASH FLOW COMPUTATION	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	
51	Potential Gross Income (PGI)		$728,640	$749,042	$770,015	$791,576	$813,740	
52	Minus Losses from Vacancy and Uncollectibles		$33,517	$34,456	$35,421	$36,412	$37,432	
53	Equals Effective Gross Income (EGI)		$695,123	$714,586	$734,594	$755,163	$776,308	
54	Minus Operating Expenses		$243,293	$250,105	$257,108	$264,307	$271,708	
55	Equals Net Operating Income (NOI)		$451,830	$464,481	$477,486	$490,856	$504,600	
56	Minus Debt Service (see above)		$345,848	$345,848	$345,848	$345,848	$345,848	
57	Equals Before Tax Cash Flow to Equity (BTCF)		$105,982	$118,633	$131,638	$145,008	$158,752	
58	Minus Income Tax (see below)		-$4,552	-$1,374	$4,618	$10,857	$19,935	
59	Equals After Tax Cash Flow to Equity (ATCF)		$110,534	$120,007	$127,020	$134,151	$138,817	
60								
61	Amount (Paid)/Received from Transaction	($2,550,000)					$3,637,899	
62								
63	INCOME TAX COMPUTATION							
64	Net Operating Income		$451,830	$464,481	$477,486	$490,856	$504,600	
65	Minus Interest Expense (see above)		$290,627	$286,341	$281,721	$276,742	$271,378	
66	Minus Depreciation		$174,591	$182,182	$182,182	$182,182	$174,591	
67	Equals Taxable Income		-$13,389	-$4,041	$13,584	$31,932	$58,631	
68								
69	Income Tax @ Ordinary Income Tax Rate%		-$4,552	-$1,374	$4,618	$10,857	$19,935	
70								
71	NPV COMPUTATION	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	
72	After Tax Cash Flow to Equity (ATCF)	($2,550,000)	$110,534	$120,007	$127,020	$134,151	$138,817	
73	After Tax Equity Reversion (ATER)						$3,637,899	**IRR:**
74	Total of ATCF + ATER	($2,550,000)	$110,534	$120,007	$127,020	$134,151	$3,776,716	**11.65%**
75	PV Factor @ Investor's Required Annual ROE	1.000000	0.910747	0.829460	0.755428	0.688003	0.626597	**NPV:**
76	PV of Total Cash Flows	($2,550,000)	$100,668	$99,541	$95,954	$92,297	$2,366,479	**$204,939**