Real Estate Investment Analysis
Fall 2003
Midterm Exam 2 – Version A – Solutions

Dr. Stanley D. Longhofer
Tu-Th 11:00-12:15

1) (20 points) Jen is selling an apartment building Pueblo, Colorado. According to the terms of the sale contract, Jen will receive a $300,000 cash down payment and will carry a $700,000 one-year note with 10 percent interest (the entire principal balance plus interest are due one year from now). The buyer will also assume Jen's existing first mortgage balance of $500,000. Jen's adjusted tax basis in this property is currently $900,000, and she will incur transaction costs of 100,000.

   a) (4 points) What is the sale price for this transaction?

Cash down payment	$300,000
+ Purchase money note	700,000
+ Mortgage assumption	500,000
Total sale price	$1,500,000

   b) (6 points) What is Jen's profit ratio on this transaction?

Sale price	$1,500,000
– Costs of sale	100,000
– Adjusted basis	900,000
Gross profit	$500,000

Sale price	$1,500,000
– Mortgage balance	500,000
Contract price	$1,000,000

   The profit ratio is therefore 500,000 / 1,000,000 = 0.50.

   c) (3 points) What is Jen's realized gain on this transaction?

   The total realized gain is simply the $500,000 gross profit.

   d) (4 points) Calculate the gain Jen will recognize each year (this year and next year) on this transaction.

	Year 0	Year 1
Equity received	$300,000	$700,000
× Profit ratio	0.50	0.50
Recognized gain	$150,000	$350,000

   Notice that Jen's total recognized gain is equal to $500,000, her total realized gain.

   e) (3 points) Will Jen have any other tax liabilities from this arrangement? Explain.

   Yes. The interest payments received at date 1 will be taxable at the ordinary income tax rate.

2) (15 points) Sara owns a small shopping center in Bakersfield, California. This building has a fair market value of $1.2 million. Sara's current mortgage balance is $800,000, and her adjusted tax basis is $600,000.

Sara would like to exchange this building for an apartment building. This building has a fair market value of $700,000. The property's outstanding mortgage balance is $500,000, and the seller's adjusted tax basis is $300,000. Each party will assume the other's mortgage, and cash will be used to balance the equities if necessary. Sara will incur transactions costs of $60,000 in this exchange.

a) (6 points) How much boot, if any, does Sara receive, and what form does it take?

Sara Gives		Sara Receives	
Property	$1,200,000	Property	$700,000
– Mortgage	800,000	– Mortgage	500,000
Equity	$400,000	Equity	200,000
		+ Cash boot	200,000
		Total equity	$400,000

Boot Received

Cash boot	$200,000
Mortgage relief	300,000
Total boot received	$500,000

b) (6 points) What is Sara's realized, recognized, and deferred gain from this exchange?

Market value	$1,200,000
– Adjusted basis	600,000
– Transaction costs	60,000
Realized gain	$540,000
Boot received	$500,000
– Transaction costs	60,000
Recognized gain	$440,000
Realized gain	$540,000
– Recognized gain	440,000
Deferred gain	$100,000

c) (3 points) Calculate Sara's substitute basis in her new property.

Market value	$700,000
– Deferred gain	100,000
Substitute basis	$600,000

Multiple Choice Questions (2 points each)

______ 1. Jackie is selling a property for $1.2 million. Her adjusted basis in the property is $900,000 and her transaction costs for the sale will be $50,000. Her cost recovery allowances on this property have totaled $100,000. What is Jackie's total gain on this sale?

A. $250,000
B. $300,000
C. $200,000
D. $700,000
E. $1.1 million

______ 2. How much of Jackie's gain in the last question is due to cost recovery (taxed at the 25 percent rate)?

A. $50,000
B. $100,000
C. $150,000
D. $50,000
E. $900,000

______ 3. How much of Jackie's gain in question 1 is due to appreciation (taxed at the 20 percent rate)?

A. $200,000
B. $300,000
C. $50,000
D. $1 million
E. $150,000

______ 4. Lara has active (salary) income of $200,000. In addition, she has two rental properties. The first generated positive income of $25,000 and the second generated a loss of $10,000. Lara also has $5,000 of unused passive losses that she has carried forward from prior years. Which of the following statements is most correct?

A. LARA'S TAXABLE INCOME IS $210,000 AND SHE HAS NO MORE PASSIVE LOSSES TO CARRY FORWARD.
B. Lara's taxable income is $225,000 and she has a passive loss carry-forward of $15,000.
C. Lara's taxable income is $200,000 and she has a passive loss carry-forward of $5,000.
D. Lara's taxable income is $215,000 and she has a passive loss carry-forward of $5,000.
E. None of the above statements is correct.

______ 5. True or ***FALSE***: You must acquire a new property and dispose of your old property simultaneously in order to have a tax-deferred exchange.

______ 6. This year Eleni will have salary income of $120,000, and she has a rental property that will generate a loss of $25,000. Eleni is an "active participant" in this investment, so she is eligible for the rental real estate loss allowance. What will Eleni's taxable income be for this year?

A. $120,000
B. $107,500
C. $105,000
D. $130,000
E. $95,000

______ 7. In the previous questions, how much passive loss carry-forward will Eleni have?

A. $10,000
B. $25,000
C. $15,000
D. $12,500
E. $0

______ 8. True or ***FALSE***: All else equal, an office property receives more favorable tax treatment than an apartment property.

______ 9. Christa has sold a property for $1.2 million. The terms of the sale require the buyer to make principal payments of $500,000 today, $400,000 one year from today, and $300,000 two years from today. (Assume Christa owns the property outright, with no mortgage.) If Christa's profit ratio on this property is 0.70 and the capital gains tax rate is 20 percent, how much capital gains tax must Christa pay *this year* due to the sale?

A. $70,000
B. $100,000
C. $56,000
D. $42,000
E. $168,000

______ 10. In the previous question, what is Christa's total realized gain on the sale?

A. $500,000
B. $1.2 million
C. $350,000
D. $240,000
E. $840,000

Consider the following information to answer the next seven questions:

Darci is purchasing an office property with a $2 million cash down payment and an $8 million mortgage at 6.5 percent interest with a 20-year term and monthly payments. Total closing costs for the purchase include $400,000 for due diligence and purchase expenses, and 2.5 points for the mortgage. The office building is expected to generate NOI of $1 million per year.

The property will be put into service on January 1 of next year, and the first mortgage payment will also be due on January 1. Darci expects to hold the property for five years.

______ 11. What is Darci's going-in cap rate for this property?

A. 12.50%
B. 50.00%
C. 8.00%
D. 6.50%
E. NONE OF THE ABOVE

______ 12. What the initial tax basis for this property?

A. $10.4 MILLION
B. $10 million
C. $10.6 million
D. $10.2 million
E. None of the above

______ 13. If the total depreciable basis is $8 million, what is the depreciation allowance in the FIRST tax year?

A. $205,128
B. $196,581
C. $290,909
D. $278,788
E. None of the above

______ 14. If the total depreciable basis is $9 million, what is the depreciation allowance in the SECOND tax year?

A. $230,769
B. $221,154
C. $327,272
D. $313,636
E. None of the above

______ 15. How much will Darci be allowed to claim as amortized expenses in the first tax year?

A. $200,000
B. <u>$10,000</u>
C. $40,000
D. $20,000
E. None of the above

______ 16. How much will Darci be allowed to claim as an interest expense in the first tax year?

A. <u>$514,061</u>
B. $520,000
C. $500,554
D. $471,727
E. None of the above

______ 17. How much will Darci be allowed to claim as an interest expense in the second tax year?

A. $520,000
B. <u>$500,554</u>
C. $514,061
D. $471,727
E. None of the above

______ 18. True or ***<u>FALSE</u>***: Real estate investments are usually held using a corporate ownership structure because it avoids the double taxation of income.

______ 19. Rebecca is purchasing a property with an initial tax basis of $14 million. The tax assessor estimates the value to be $10 million, with $4 million of the value attributable to land. A recent appraisal puts the value at $15 million with $3.75 million of the value attritubable to land. What is the depreciable basis for this property?

A. <u>$10.5 MILLION</u>
B. $14 million
C. $8.4 million
D. $11.25 million
E. $6 million

______ 20. ***<u>TRUE</u>*** or False: Special assessments are essentially treated like a mortgage for tax purposes.

______ 21. True or ***FALSE***: Taxable income is always less than before-tax cash flows because of depreciation allowances.

______ 22. Stephanie has active income (salary) of $125,000 and portfolio income (stock market investments) of $20,000. In addition, she has a real estate investment that generated positive income of $15,000. What is her total taxable income?

A. $125,000
B. $145,000
C. $160,000
D. $130,000
E. None of the above

______ 23. Heather has active income (salary) of $140,000, portfolio income (stock market investments) of $15,000. In adition, she has two real estate investments. The first generated positive income of $45,000. The second generated a loss of $65,000. What is her total taxable income?

A. $140,000
B. $155,000
C. $135,000
D. $120,000
E. $200,000

______ 24. True or ***FALSE***: An exchange from an office building into a warehouse would not be tax-deferred because it is not an exchange of like-kind property.

______ 25. Which of the following is NOT considered boot in a tax-deferred exchange?

A. Mortgage relief
B. Cash
C. A yacht
D. A diamond ring
E. ALL OF THE ABOVE ARE BOOT IN A TAX-DEFERRED EXCHANGE

______ 26. The "three-property rule" states that

A. you must identify at least three properties in order to complete a delayed exchange.
B. YOU CAN IDENTIFY AT MOST THREE PROPERTIES IN ORDER TO COMPLETE A DELAYED (STARKER) EXCHANGE.
C. you can exchange at most three properties at one time.
D. no more that three investors may exchange properties in one exchange transcation.
E. None of the above

Use the following information for the next five questions:

> Cori is purchasing an apartment complex for $6 million. She will finance this purchase with a 75 percent loan-to-value (LTV) ratio, 10-year balloon loan at 7.0 percent interest, with monthly payments amortized over 25 years. Total closing costs for the purchase include $200,000 for due diligence and purchase expenses, and 1 point for the mortgage. The property is expected to generate NOI of $700,000 per year.
>
> It will be put into service on March 1 of next year, and the first mortgage payment will also be due on March 1. Cori expects to hold the property for five years.

______ 27. What will Cori's annual debt service be for the loan on this investment?

A. $31,805
B. $381,661
C. $626,985
D. $508,881
E. None of the above

______ 28. What will Cori's initial tax basis be for this investment?

A. $6 million
B. $6.245 million
C. $4.5 million
D. $4.7 million
E. $6.2 MILLION

______ 29. If the depreciable basis on this invesment is $5 million, what will Cori's depreciation allowance be in the FIRST year?

A. $174,242
B. $181,818
C. $143,939
D. $128,205
E. $101,496

______ 30. What will Cori's amortized loan expenses be in the FIRST year?

A. $4,500
B. $3,750
C. $1,800
D. $37,500
E. None of the above

______ 31. What will Cori's amortized loan expenses be in the SECOND year?

A. $4,500
B. $45,000
C. $1,800
D. $9,000
E. None of the above

______ 32. ***TRUE*** or False: You are taxed based on your recognized gain, not your realized gain.

______ 33. (Freebe) What do all of the names used in this exam have in common?

A. They are all names of faculty in the Barton School.
B. THEY ARE ALL NAMES OF WSU VOLLEYBALL PLAYERS.
C. They are all names of students in this class.
D. They are all names of Dr. Longhofer's sisters.
E. They prove that Dr. Longhofer has too much time on his hands when writing exams.