

Chapter I10

Depreciation, Cost Recovery, Depletion, and Amortization

Discussion Questions

I10-1 a. An automobile that is held for personal use is not eligible for depreciation or amortization.

b. Goodwill is a Sec. 197 intangible asset that is amortizable ratably over a 15-year period beginning with the month of acquisition.

c. Since the cost of the customer list represents a Sec. 197 intangible, its cost is amortizable on a ratable basis over a 15 year period beginning with the month of acquisition.

d. A patent is amortizable over its legal life of seventeen years since the cost of the patent has a definite and limited life. The patent does not qualify for 15-year amortization under Sec. 197 because it was not acquired in connection with a transaction that involves the acquisition of a trade or business or a substantial portion of a trade or business.

e. Land is not eligible for depreciation or amortization.

f. A covenant not to compete is a Sec. 197 intangible which is amortizable ratably over a 15-year period despite the fact that the period under the agreement may be for a different period (e.g., five years). In such case no loss is recognized and the basis of retained Sec. 197 intangibles is increased by the unrecognized loss. pp. I10-2, I10-3 and I10-14.

I10-2 Depreciation deductions are not discretionary. The basis of property must be reduced by the amount of depreciation that should have been taken (allowable depreciation) even if no depreciation had been claimed. The basis of the property must be reduced on a consistent basis by the amount of the depreciation computed using one of several accounting methods provided under the tax law. If no method had previously been used, allowable is defined as the slowest possible method allowed by law (e.g., straight-line using the longest permissible recovery period). So, Rick could wind up recognizing a gain to the extent the asset is sold for more than its adjusted basis. p. I10-3.

I10-3 The basis of property converted from personal-use to business or investment use is the lesser of the adjusted basis or the FMV of the property (at the date of conversion). The decline in value of \$20,000 (\$120,000 - \$100,000) represents a personal nondeductible loss and is not depreciable. Therefore, the depreciable basis is \$100,000 of which a portion must be allocated to land. This lower of cost or market rule is intended to prevent taxpayers from depreciating unrealized nondeductible personal losses. pp. I10-3 and I10-4.

I10-4 a.	Subject to Sec.		b. <u>Recovery Period</u>
	<u>Subject to MACRS</u>	<u>197 Amortization</u>	
Furniture	Yes	No	7 years
Plumbing fixtures	Yes	No	7 years
Land	No	No	N/A
Trademark	No	Yes	15 years
Goodwill	No	Yes	15 years
Automobile	Yes	No	5 years
Heavy Truck	Yes	No	5 years
Machinery	Yes	No	7 years
Building used in manufacturing	Yes	No	39 years

pp. I10-6 and I10-7, I10-15 and I10-16.

I10-5 The MACRS allowed on the newly acquired machine is \$357 (Table 5 in Appendix C) DDB; 7-year recovery period; $\times .0357$. The mid-quarter convention must be applied because more than 40% of the property was placed in service in the last three months. \$893 depreciation ($\$20,000 \times .0893 \times \frac{1}{2}$ year) is allowed for the equipment (Table 1, Appendix C). Only one-half year depreciation is allowed in the year of sale even though the equipment was sold on December 31st pursuant to the half-year convention. pp. I10-6 through I10-8.

I10-6 Yes, since depreciation for real estate is computed using tables that follow the mid-month convention (after June 22, 1984), depreciation is allowed in the year of disposal. The amount of depreciation is computed by taking one-half month for the month the asset is sold plus the number of full months held prior to sale, divided by 12 months. For example, if property is disposed of on October 30, for example, the table percentage must be multiplied by the fraction $9.5/12$ (nine full months plus one-half month for October). pp. I10-8 and I10-9.

I10-7 a. No, the salesman is incorrect. The maximum amount of depreciation, including both Sec. 179 and regular MACRS is limited to \$3,060 due to the limitation on the deduction of amounts related to luxury automobiles under Section 280F. Since the regular MACRS depreciation deduction ($\$40,000 \times .20 = \$8,000$) is greater than the maximum luxury car amount of \$3,060, the maximum depreciation deduction in the initial year is \$3,060. For this reason, Sec. 179 is not recommended for luxury automobiles. pp. I10-12 and I10-13.

b. The Sec. 179 deduction or the amount of MACRS depreciation in the first year would be \$1,836 ($\$3,060$ limit \times 60% business).

c. Jose could deduct the lease payments (or 60% of the lease payments under part b). He must however, include an amount in gross income under tables published by the IRS if the auto is leased for the entire year and is used 100% for business. Jose is not eligible for the Sec. 179

deduction. The amount is 60% of the lease inclusion amount from the IRS tables. These tables are not shown in this textbook. pp. I10-13 and I10-14.

I10-8 a. Straight-line depreciation would be preferable to reduce the deductions in current years. This would have the effect of increasing taxable income currently which could be offset against the NOL's. The alternative depreciation system employs the straight-line method of depreciation (versus 200% DB depreciation under MACRS) and a longer recovery period.

b. Excess depreciation from the use of MACRS over straight line depreciation using the alternative depreciation system is not beneficial in the initial years because Rhonda's marginal tax rate is only 15% and is expected to increase in three years. pp. I10-9 and I10-20.

I10-9 Under Sec. 179, the immediate expense write-off method allows for an ordinary deduction of amounts up to \$20,000 (2000) in any one year. Its primary advantage is the time value of the tax benefits that result from a larger deduction in the first year and a corresponding deferral of tax. pp. I10-10 and I10-11.

I10-10 a. The taxpayer may use MACRS for the non-personal-use portion of the cost of both assets. Both have a recovery period of five years. pp. I10-11 and I10-12.

b. If the taxpayer is an employee and the auto and computer are not required as a condition of employment, no depreciation is allowed. pp. I10-11 and I10-12.

c. If the business use percentage decreases to 50% or less in a subsequent year, the property is subject to depreciation recapture and the depreciation for all subsequent years is recomputed using the alternative depreciation system. When the business use first falls to 50% or below, depreciation must be recaptured to the extent that MACRS depreciation exceeds the recomputed depreciation using the alternative depreciation system. p. I10-12.

I10-11 No. The rental payments are fully deductible as a business expense because the automobile is used exclusively for business. Thus, \$6,000 ($\600×10 payments) is deductible in the current year. However, Sarah is required to include an "inclusion amount" in gross income to reflect the excess FMV of the leased automobile. This amount is determined from IRS tables. Thus, in the current year Sarah must include \$162 ($\$194 \times 10/12 \times 100\%$) in her gross income. pp. I10-13 and I10-14.

I10-12 Most intangible assets may be classified as either Sec. 197 intangibles or not Sec. 197 intangibles. In general, Sec. 197 applies only to intangible assets that are acquired in connection with a transaction that involves the acquisition of a trade or business or a substantial portion of a trade or business. Sec. 197 intangibles are amortizable ratably over a 15-year period. Also, a loss on the disposition of a Sec. 197 intangible asset is not deductible if other intangibles acquired in the same asset acquisition of a trade or business are retained. Internally created intangibles and intangibles acquired by the purchase of an individual asset are subject to amortization only if they have both a definite and limited life (e.g., an internally created patent with a 17-year legal life). pp. I10-15 and I10-16.

I10-13 a. The internally created patent costs should be amortized over the legal life of 17 years. Thus, \$2,000 ($\$34,000 \div 17$ years) should be amortized in the current year. Goodwill and going concern value - \$100,000, the covenant not to compete - \$50,000, licenses - \$125,000, and customer lists - \$25,000 totaling \$300,000 are Sec. 197 intangibles and are amortizable on a ratable basis over 15 years. Thus, \$20,000 would be amortized in the current year.

b. The purchaser should attempt to allocate as much of the total purchase price to inventory because of its near term effect upon cost of goods sold. Then an attempt should be made to allocate as much of the remaining purchase price to the assets with the shortest recovery period (e.g., the equipment and the Sec. 197 intangibles). Land is not depreciable. pp. I10-15 and I10-16.

I10-14 Research and experimental expenditures are usually expensed because the taxpayer wants the immediate tax benefit. The deferral and amortization method would be advantageous if the taxpayer is in a low tax bracket or expects a net operating loss. pp. I10-16 and I10-17.

I10-15 Buyers generally prefer a liberal allocation of the purchase price to ordinary assets such as inventory because gross profit is reduced when the inventory is sold. Allocations to short-lived depreciable assets and Sec. 197 intangibles are preferred to land and other nondepreciable assets due to the tax benefits obtained from the depreciation and amortization. p. I10-22.

I10-16 a. Assuming Simon wants to maximize his deductions in the initial year, the immediate write-off should be elected for the treatment of the IDC because the total deduction is \$25,000 (\$15,000 percentage depletion + \$10,000 IDC) if the IDC is expensed and only \$20,000 if the IDC is capitalized.

b. Intangible drilling costs are generally expensed because of the greater tax benefit as opposed to capitalizing and deducting the costs in future periods. If the percentage depletion deduction is expected to be greater than the cost depletion and is used to compute the depletion allowance, it is more beneficial to deduct the intangible drilling costs. The capitalization and amortization of IDC merely increases the cost depletion amount and produces limited or no tax benefit. The expensing of the intangible drilling costs reduces gross income thereby lowering taxable income. pp. I10-18 through I10-20.

Issue Identification Questions

I10-17 The principal tax issue that needs to be considered is whether depreciation may be taken in the current year of acquisition or whether depreciation may be taken only in the year the automobile is placed into service. A second issue is the use of MACRS methods and whether the luxury auto limits apply. pp. I10-3 and I10-12.

I10-18 The following tax issues need to be addressed:

- The luxury auto limitations
- The inclusion amount under tables published by the IRS for the initial year and subsequent years if the automobile is leased.

- The effect of depreciation recapture and the required use of the alternative depreciation system when the use of the auto falls to 50% or less because the auto is classified as listed property.
- Paula's increased marginal tax rate and the impact of her changed tax situation upon the decision. pp. I10-12 and I10-13.

I10-19 The principal tax issue is whether Sec. 197 amortization applies to the intangible assets and to what extent the purchase agreement will establish tax basis for the acquired properties. Generally, under Sec. 1060, an agreement between the purchasing and selling parties is binding unless the IRS determine the allocations are not appropriate. p. I10-15.

I10-20 The principal issue is the applicability of the mid-quarter convention. The issue is complicated by the interaction of the Sec. 179 deduction and the 40% test. For purposes of the mid-quarter convention test, the Sec. 179 deduction is subtracted from the property placed into service for purposes of the 40% test. Therefore, if the CPA takes \$20,000 on the March 1 purchase, the mid-quarter convention will apply, e.g., greater than 40% of tangible personal property was placed into service in the last quarter of the year [$35,000 / (100,000 - 20,000) = 43.75\%$]. pp. I10-7 and I10-8.

Problems

I10-21 a. Even though Sandy did not claim any depreciation in 1999 and 2000, she is required to reduce her basis for the amount of allowable depreciation. The adjusted basis of the machine is \$5,247.

Computed as follows:

1998: \$10,000 x 0.1429 =	\$ 1,429
1999: \$10,000 x 0.2449 =	2,449
2000: \$10,000 x 0.1749 x 1/2 year =	<u>875</u>
Total allowable depreciation	<u>\$ 4,753</u>
Acquisition cost	\$10,000
Minus: Allowable depreciation	<u>(4,753)</u>
Adjusted basis	<u>\$ 5,247</u>

Sandy may file an amended return for 1999 to claim the depreciation for that year. The 2000 return should be corrected before filed or amended to claim the depreciation for 2000 and properly compute the gain on sale.

b. A \$753 gain is recognized upon the sale of the asset which is computed as follows:

Sales price	\$ 6,000
Minus: Adjusted basis	<u>(5,247)</u>
Recognized gain	<u>\$ 753</u>

p. I10-3.

I10-22 a. The automobile's basis for depreciation is \$6,000. When personal use property is converted to business use, the property's basis for depreciation is the lesser of its adjusted basis or the FMV on the date the property is converted to business use.

b. Depreciation for 2000 is \$1,200 ($\$6,000 \times 0.2000$) see Table 1, Appendix C. pp. I10-3, I10-6 and I10-12.

I10-23 a. The amount of depreciation deduction, using the half-year convention, for each asset in 2000 is:

Light truck:	\$2,000 ($\$10,000 \times 0.2000$)
Machinery:	\$7,145 ($\$50,000 \times 0.1429$)
Land:	-0- (not eligible for depreciation)
Building:	\$107 ($\$100,000 \times 0.00107$) See Table 8 in Appendix C.
Equipment:	-0- (not eligible for depreciation because it was not in service until the next year)

b. Since more than 40% of all personal property acquired in the current year is placed in service in the last three months ($\$60,000/\$60,000 = 100\%$), the mid-quarter convention is applied (Table 5 in Appendix C).

Light truck	\$ 500 ($\$10,000 \times 0.05$)
Machinery	\$1,785 ($\$50,000 \times 0.0357$)
Land	-0-
Building	\$ 107 ($\$100,000 \times 0.00107$) See also Table 8 in Appendix C.
Equipment	-0-

c. Machinery

Depreciation for 2000:	\$7,145 ($\$50,000 \times .1429$)
2001:	\$12,245 ($\$50,000 \times .2449$)
2002:	\$4,373 ($\$50,000 \times .1749 \times \frac{1}{2}$ year)

Adjusted basis: cost of machinery	\$50,000
accumulated depreciation ($\$7,145 + \$12,245 + \$4,373$)	<u>(23,763)</u>
adjusted basis	\$26,237

Building

Depreciation for 2000:	\$107 ($\$100,000 \times .00107$)
2001:	\$2,564 ($\$100,000 \times .02564$)
2002:	\$2,030 ($\$100,000 \times .02564 \times 9.5/12$)

Adjusted basis: cost of building	\$100,000
accumulated depreciation (\$107 + \$2,564 + \$2,030)	(4,701)
adjusted basis	\$ 95,299

pp. I10-6 through I10-9.

I10-24 Since more than 40% of the personal property acquired during the year 2000 is placed in service in the last three months ($\$40,000/\$70,000 = 57.14\%$), the mid-quarter convention will apply for all personal property placed in service during 2000.

The depreciation deduction for 2000 is computed as follows:

<u>Acquisition Date</u>	<u>Class Property</u>	<u>Depreciation Deduction</u>
4/1/2000	5-year	\$7,500 (.2500 x \$30,000) (See Table 3 in Appendix C)
11/1/2000	7-year	\$1,429 (.0357 x \$40,000) (See Table 5 in Appendix C)
5/12/2000	27.5 year	\$4,091(.02273 x \$180,000) (See Table 6 in Appendix C)

The depreciation deduction for 2001 is computed as follows:

<u>Property</u>	<u>Depreciation Deduction</u>
5-year property	\$9,000 (.30 x \$30,000)
7-year property	\$11,020 (.2755 x \$40,000)
Building, 27.5-property	\$6,545 (.03636 x \$180,000)

pp. I10-7 and I10-8.

I10-25 a. Tish may deduct up to \$3,000 under Sec. 179 in 2000. The Sec. 179 election has several rules and limitations. If the total cost of qualified property placed into service during the year is greater than \$200,000, the \$20,000 ceiling is reduced by the excess amount. In addition, the Sec. 179 election may not exceed the taxpayer's taxable income before deducting the Sec. 179 expense from the trade or business. In this case, the ceiling is first reduced by \$14,000 [$\$214,000$ (cost of qualifying property) - $\$200,000$ (limit on qualifying property)] to \$6,000. The taxpayer may then use up to \$4,000 which is his taxable income before deducting the Sec. 179 expense. The \$2,000 worth of unused cost may be carried forward to the succeeding taxable year and is added to the other amounts eligible for the Sec. 179 deduction. pp. I10-10 and I10-11.

b. The MACRS depreciation deduction for the machine in 2000 is \$2,715 ($\$19,000 \times 0.1429$). Total deductions for 2000 are \$6,715 ($\$4,000$ expense under Sec. 179 + $\$2,715$ MACRS depreciation) computed as follows:

Cost of machine	\$ 25,000
Minus: Sec. 179 deduction of \$4,000 + \$2,000 carryover	<u>(6,000)</u>
MACRS depreciable basis	\$ 19,000
Times: MACRS rate for seven-year property	<u>x 0.1429</u>
MACRS deduction	<u>\$ 2,715</u>

pp. I10-6 through I10-8.

I10-26 Auto - \$864 ($\$9,000 \times 0.1920 \times \frac{1}{2}$ year). See Table 1, Appendix C.

Equip - \$1,749 ($\$20,000 \times 0.1749 \times \frac{1}{2}$ year). See Table 1, Appendix C.

Bldg. - \$4,025 ($\$100,000 \times 0.042 \times 11.5$ divided by 12). The mid-month convention is used. See Table 13, Appendix C. pp. I10-6 through I10-9.

I10-27 a. The machine's basis for depreciation purposes in the initial year (after Sec. 179 deduction) is \$8,000 and the total depreciation deduction in the initial year is \$21,143 ($\$20,000$ Sec. 179 deduction + \$1,143 MACRS depreciation deduction). This MACRS depreciation amount is computed as follows:

Cost of machine	\$28,000
Minus: Sec. 179 deduction	<u>(20,000)</u>
MACRS basis for depreciation	\$ 8,000
Times: MACRS rate for 7-year property	<u>x 0.1429</u>
MACRS depreciation deduction	<u>\$ 1,143</u>

b. The depreciation for the four years is as follows:

2000	\$21,143 (see calculations above)
2001	\$1,959 ($\$8,000 \times .2449$)
2002	\$1,399 ($\$8,000 \times .1749$)
2003	\$499 ($\$8,000 \times .1249 \times \frac{1}{2}$ year)

Total accumulated depreciation = \$25,000.

The adjusted basis and gain on sale are computed as follows:

Sale price	\$15,000
Adjusted basis:	
Cost	\$28,000
Accumulated Depreciation	<u>(25,000)</u>
Gain on sale	<u>\$12,000</u>

pp. I10-6 through I10-11.

I10-28 The purpose of this problem is to illustrate the tax advantage of properly allocating the Sec. 179 deduction among properties when the mid-quarter convention is applicable. In this case,

depending on which property is selected for the Sec. 179 deduction, the mid-quarter convention may or may not apply. Two alternatives are demonstrated below:

Alternative #1: Allocate the entire Sec. 179 deduction to Equipment A. Since the entire \$20,000 is allocated to Equipment A, the mid-quarter convention will apply, as follows:

Property placed into service in 4th quarter	\$50,000
Total property placed into service during the year (50,000 + 30,000)	\$80,000
Percentage of equipment placed into service in 4th quarter (50,000/80,000)	62.5%

Since 40% or more equipment was placed into service in the last quarter of the year, the mid-quarter convention applies.

2000 Depreciation:

Equipment A: $\$50,000 - 20,000 = 30,000 \times 25\%$ (Table 3, Appendix C)	\$ 7,500
Section 179	20,000
Equipment B: $\$50,000 \times 3.57\%$ (Table 5, Appendix C)	<u>1,785</u>
TOTAL DEPRECIATION - 1999	<u>\$29,285</u>

Alternative #2: Allocate the entire Sec. 179 deduction to Equipment B. The mid-quarter convention will not apply, as follows:

Property placed into service in 4th quarter (less Sec. 179 deduction)	\$30,000
Total property placed into service during the year	\$80,000
Percentage of equipment placed into service in 4th quarter	37.5%

Since less than 40% of equipment was placed into service in the last quarter of the year, the mid-quarter convention does not apply.

2000 Depreciation:

Equipment A: $\$50,000 \times 20\%$ (Table 1, Appendix C)	\$10,000
Equipment B: $\$50,000 - 20,000 = 30,000 \times 14.29\%$ (Table 1, Appendix C)	4,287
Section 179	<u>20,000</u>
TOTAL DEPRECIATION - 1999	<u>\$34,287</u>

In this case, Todd would maximize his depreciation in 2000 if he selects Equipment B for the Sec. 179 deduction. It should be pointed out that taxpayers are not required to select the entire \$20,000 to one piece of equipment. A portion of the Sec. 179 deduction could be allocated to Equipment A and the remainder to Equipment B. In some cases, the allocation of the Sec. 179 deduction to property placed into service early in the year to force the mid-quarter convention will be favorable to the taxpayer. This is not the case in this problem. pp. I10-7 through I10-11.

I10-29 a. All of the Long Corporation's assets are depreciated under the alternative depreciation system (ADS). Year 2000 depreciation for each asset is computed using Table 10, Appendix C.

Equipment - \$2,857 (\$40,000 x 0.0714).
 Light duty truck - \$3,000 (\$30,000 x 20% x 1/2 year). (1/2 depreciation in year of sale).
 Furniture - \$1,429 (\$10,000 x 0.1429).
 Automobile - \$1,200 (\$12,000 x 20% x 1/2 year).

p. I10-11.

b.	Light truck	\$12,000
	Minus: Basis	<u>(12,000)^a</u>
	Gain	<u>\$ -0-</u>

^a \$30,000 - [\$3,000 in 1997 + \$12,000 (\$6,000 in 1998 and 1999), + \$3,000 in 2000]. One-half year is taken in the year of acquisition and one-half in the year of disposition.

	Automobile	\$10,000
	Minus: Basis (\$12,000 - 4,800)	<u>(7,200)^b</u>
	Gain	<u>\$ 2,800</u>

^b \$12,000 - (\$1,200 in 1998, 2,400 in 1999 and \$1,200 in 2000). One-half year is taken in the year of acquisition and one-half year in the year of disposition.

pp. I10-6 through I10-11.

I10-30 Both assets are "listed property" and are subjected to the special rules contained in Sec. 280F. The MACRS depreciation deduction for the automobile in 2000 is \$1,320. The depreciation for the personal computer in 2000 is \$160 under the alternative depreciation system. These amounts are computed as follows:

For the automobile:

If a property's business use is greater than 50% of its total usage, the taxpayer may use the regular MACRS rates for the business use portion of the asset's cost.

Cost of the automobile	\$11,000
Times: MACRS rate	<u>x0.2000</u>
MACRS depreciation	\$ 2,200 ^a
Times: Business percentage use	<u>x .60</u>
MACRS depreciation	<u>\$ 1,320</u>

^a Luxury car limit is \$3,060 in 2000, so limit is \$1,836 (\$3,060 x 60%) and, therefore, does not apply in this situation.

For the computer:

If a property's business use is less than 50%, the taxpayer must use the alternative depreciation system which is five-year straight-line depreciation for automobiles and computers.

Cost of the computer	\$4,000
Times: Business percentage use	<u>x .40</u>
Business portion	\$1,600
Times: rate from Table 10, Appendix C	<u>x .10</u>
Depreciation	<u>\$ 160</u>

pp. I10-11 and I10-12.

I10-31 No amount of depreciation is allowed for the automobile or the computer. In addition to the 50% business usage test, the use of the asset by the employee must be for the convenience of the employer and required as a condition of employment. Since this is not required as a condition of employment, the use is deemed to be personal rather than business. p. I10-12.

I10-32 a. The MACRS depreciation deductions for 1998, 1999, and 2000 are \$1,400, \$2,240, \$800, respectively. These amounts are computed as follows:

Year	Depreciation
1998	\$1,400 MACRS (\$10,000 cost x .70 business use x 0.2000)
1999	\$2,240 MACRS (\$10,000 cost x .70 business use x 0.3200)
2000	\$800 ADS (\$10,000 cost x .40 business x 0.200)

b. Depreciation recapture in 2000 is \$1,540.

Once the business use percentage for listed property decreases to 50% or below in a subsequent year, the property is subject to depreciation recapture. The alternative depreciation system must be used in order to recompute all of the prior year depreciation deductions. The excess depreciation is included in the taxpayer's income in the year in which the percentage falls to 50% or below. Depreciation in the two prior years under ADS is computed as follows:

Year	Depreciation
1998	\$700 ADS (\$10,000 cost x 0.70 business x 10%) per Table 10, Appendix C.
1999	\$1,400 ADS (\$10,000 cost x 0.70 x 20%.

Total recapture for 2000 is \$1,540 (\$3,640 MACRS depreciation for 1998 and 1999 - \$2,100 total depreciation under ADS for 1998 and 1999).

pp. I10-6, I10-12 through I10-14.

I10-33 The depreciation for 2000, 2001, 2002 is \$3,060, \$4,900 and \$2,950, respectively. These amounts are computed as follows:

Year	MACRS Deduction	Ceiling Limit	Allowed Deduction
2000	\$4,000 (\$20,000 x 0.2000)	\$3,060	\$3,060
2001	\$6,400 (\$20,000 x 0.3200)	4,900	4,900
2002	\$3,840 (\$20,000 x 0.1920)	2,950	2,950

Note: For subsequent years there is a \$1,775 ceiling limitation until the automobile is fully depreciated. pp. I10-12 and I10-13.

I10-34 The depreciation for 2000, 2001, and 2002 is \$2,448, \$4,000 and \$2,360, respectively. These amounts are computed as follows:

Year	MACRS Deduction	Ceiling Limit	Allowed Deduction
2000	\$4,800 (\$30,000 x 0.2000 x 0.80)	\$2,448(\$3,060 x 0.80)	\$2,448
2001	\$7,680 (\$30,000 x 0.3200 x 0.80)	\$3,920(\$4,900 x 0.80)	\$3,920
2002	\$4,608 (\$30,000 x 0.1920 x 0.80)	\$2,360(\$2,950 x 0.80)	\$2,360

Note: For subsequent years there is a \$1,420 (\$1,775 x 0.80) ceiling limitation until the automobile is fully depreciated. p. I10-12 and I10-13.

I10-35 a. The \$7,200 (\$600 x 12) rental payments x 80% business use are deductible or \$5,760 is a business expense for each of the two years.

b. Troy must include \$155.20 in gross income (\$194 x .80 x 365/365) for 2000 and \$341.60 (\$427 x 80% x 365/365) for 2001.

c. The \$5,760 rental payments are deductible but no amount is included in gross income because the FMV is below the minimum amount designated as a luxury auto. pp. I10-12 through I10-14.

I10-36 a. Vicki's assets would be recorded as follows:

	Debit	Credit
Palm tangible assets	\$400,000	
Covenant not to compete	\$ 50,000	
Goodwill	\$ 70,000	
Patents	\$ 30,000	
Customer list	\$ 50,000	
Cash		\$600,000

- b. All of the assets are considered assets under Sec. 197, and are amortized as follows:
- Covenant - \$3,333 ($\$50,000 \div 15$ years) despite the fact that the covenant is for a period of 5 years.
 - Goodwill - \$4,667 ($\$70,000 \div 15$ years).
 - Patent - \$2,000 ($\$30,000 \div 15$ years) despite the fact that the remaining legal life is only 12 years.
 - Customer list - \$3,333 ($\$50,000 \div 15$ years).

pp. I10-14 through I10-17.

I10-37 The only expenditures that are deductible as research and experimental costs under Sec. 174 are materials and supplies for research laboratory, utilities and depreciation on research laboratory and equipment, and research costs subcontracted to a local university. Costs of acquiring another person's patent, market research survey's and labor and supplies for quality control tests do not qualify. pp. I10-16 and I10-17.

I10-38 a. If the expensing method is elected Phoenix's deduction for R&E expenditures in 2000 is \$170,000 ($\$40,000 + \$80,000 + \$30,000 + \$20,000$ depreciation ($\$100,000 \times 0.2000$)) and in 2001 is \$32,000 (depreciation - $\$100,000 \times 0.3200$).

b. If the deferral and amortization method is elected and the amortization period is 60 months there would be no amortization allowed in 2000 and \$34,000 ($[\$170,000 \text{ divided by } 60] \times 12$) in 2001. pp. I10-16 and I10-17.

I10-39 If the IDCs are expensed, the cost depletion amount is \$40,000, computed as follows:

Acquisition cost	\$200,000
Divided by:	
Estimated recoverable units	<u>20,000</u>
Amount per unit cost depletion	\$ 10
Times: Units sold	<u>x 4,000</u>
Depletion amount	<u>\$ 40,000</u>

b. If the IDCs are capitalized, the cost depletion amount is \$44,000. The basis for cost depletion purposes is \$220,000.

Acquisition cost (\$200,000 + \$20,000)	\$220,000
Divided by:	
Estimated recoverable units	<u>20,000</u>
Amount per unit cost depletion	\$ 11
Times: Units sold	<u>x 4,000</u>
Depletion amount	<u>\$ 44,000</u>

c. One must include in the tax return, the greater of cost depletion or percentage depletion not to exceed 100% of taxable income before depletion is included. Therefore, cost depletion of \$44,000 is deducted if the IDCs are capitalized and \$40,000 if the IDCs are expensed because percentage depletion is only \$25,000.

d. Assuming there is substantial gross income, the immediate expense method is preferable because \$20,000 intangible drilling costs may be expensed in the initial year while still deducting \$40,000 of cost depletion. Under the capitalization method, gross income may only be reduced by \$44,000. pp. I10-18 through I10-20.

I10-40 a. If the IDCs are expensed the percentage depletion amount is \$75,000. This amount is computed as follows:

Gross income	\$500,000
Minus: Expenses (including \$100,000 IDCs)	<u>(300,000)</u>
Taxable income (before depletion)	\$200,000
Percentage depletion (0.15 x \$500,000)	<u>(75,000)^a</u>
Taxable income	<u>\$125,000</u>

^a The limitation is \$200,000 (1.00 x \$200,000) and, therefore, is not applicable.

b. If the IDCs are capitalized, the percentage depletion amount is still \$75,000. This amount is computed as follows:

Gross income	\$500,000
Minus: Expenses	<u>(200,000)</u>
Taxable income (before depletion)	\$300,000
Minus: Percentage depletion (0.15 x \$500,000)	<u>(75,000)^b</u>
Taxable income	<u>\$225,000</u>

^b The entire 15% may be taken because \$75,000 is less than the \$300,000 limitation (1.00 x \$300,000 taxable income before depletion).

c. If the IDCs are expensed, the depletion deduction is \$75,000 (the greater of \$75,000 percentage depletion or \$20,000 of cost depletion).

d. The percentage depletion method should be used because the taxpayer may deduct the \$75,000 plus the \$100,000 of IDCs in the current year. pp. I10-18 through I10-20.

Tax Form/Return Preparation Problems

I10-41 (See Instructor's Guide)

I10-42 (See Instructor's Guide)

Case Study Problems

I10-43 (See Instructor's Guide)

I10-44 (See Instructor's Guide)

Tax Research Problem

I10-45 (See Instructor's Guide)