

# CHAPTER 19

## Accounting for Income Taxes

### ASSIGNMENT CLASSIFICATION TABLE (BY TOPIC)

Topics	Questions	Brief		Concepts	
		Exercises	Exercises	Problems	for Analysis
1. Reconcile pretax financial income with taxable income.	1, 13	1	1, 2, 4, 7, 12, 18, 20, 21	1, 2, 3, 8	
2. Identify temporary and permanent differences.	2, 3, 4, 5		4, 5, 6, 7		3, 4, 5
3. Determine deferred income taxes and related items—single tax rate.	6, 7, 13	2, 3, 4, 5, 6, 7, 9	1, 3, 4, 5, 7, 8, 12, 14, 15, 19, 21, 23, 25	3, 4, 8, 9	2
4. Classification of deferred taxes.	10, 11, 12,	15	7, 11, 16, 18, 19, 20, 21, 22	3, 6	2, 3, 5
5. Determine deferred income taxes and related items—multiple tax rates, expected future income.		10	2, 13, 16, 17, 18, 20, 22	1, 2, 6, 7	1, 6, 7
6. Determine deferred taxes, multiple rates, expected future losses.		10			
7. Carryback and carryforward of NOL.	16, 17, 18,	12, 13, 14	9, 10, 23, 24, 25	5	
8. Change in enacted future tax rate.	14	11	16	2, 7	
9. Tracking temporary differences through reversal.		9	8, 17	2, 7	
10. Income statement presentation.	9	8	1, 2, 3, 4, 5, 7, 10, 12, 16, 19, 23, 24, 25	1, 2, 3, 5, 7, 8, 9	
11. Conceptual issues—tax allocation.	1, 2, 8				1, 2, 7
12. Valuation allowance—deferred tax asset.	8	7	7, 14, 15, 23, 24, 25		
13. Disclosure and other issues.	15				

## ASSIGNMENT CLASSIFICATION TABLE (BY LEARNING OBJECTIVE)

Learning Objectives	Brief Exercises	Exercises	Problems
1. Identify differences between pretax financial income and taxable income.	1, 2, 5		
2. Describe a temporary difference that results in future taxable amounts.	1, 2, 4, 9, 10	1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 16, 17, 18, 19, 20, 21, 22	1, 3, 4, 6, 7, 8, 9
3. Describe a temporary difference that results in future deductible amounts.	5, 6, 9	4, 5, 7, 8, 11, 12, 14, 15, 17, 18, 19, 20, 21, 22	1, 2, 4, 6, 8, 9
4. Explain the purpose of a deferred tax asset valuation allowance.	8, 14	7, 14, 15, 23, 24, 25	
5. Describe the presentation of income tax expense in the income statement.	4, 6, 7	1, 3, 4, 5, 8, 12, 15, 16	1, 2, 3, 4, 5, 7, 8, 9
6. Describe the various temporary and permanent differences.		4, 6, 7	2, 3, 9
7. Explain the effect of various tax rates and tax rate changes on deferred income taxes.	11	13, 16, 17, 18, 21, 23, 24, 25	5, 7
8. Apply accounting procedures for a loss carryback and a loss carryforward.	12, 13, 14	9, 10, 23, 24, 25	5
9. Describe the presentation of deferred income taxes in financial statements.	3, 15	8, 11, 16, 19, 20, 21, 22	3, 5, 6, 8, 9
10. Indicate the basic principles of the asset-liability method.			

## ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E19-1	One temporary difference, future taxable amounts, one rate, no beginning deferred taxes.	Simple	15–20
E19-2	Two differences, no beginning deferred taxes, tracked through 2 years.	Simple	15–20
E19-3	One temporary difference, future taxable amounts, one rate, beginning deferred taxes.	Simple	15–20
E19-4	Three differences, compute taxable income, entry for taxes.	Simple	15–20
E19-5	Two temporary differences, one rate, beginning deferred taxes.	Simple	15–20
E19-6	Identify temporary or permanent differences.	Simple	10–15
E19-7	Terminology, relationships, computations, entries.	Simple	10–15
E19-8	Two temporary differences, one rate, 3 years.	Simple	10–15
E19-9	Carryback and carryforward of NOL, no valuation account, no temporary differences.	Simple	15–20
E19-10	Two NOLs, no temporary differences, no valuation account, entries and income statement.	Moderate	20–25
E19-11	Three differences, classify deferred taxes.	Simple	10–15
E19-12	Two temporary differences, one rate, beginning deferred taxes, compute pretax financial income.	Complex	20–25
E19-13	One difference, multiple rates, effect of beginning balance versus no beginning deferred taxes.	Simple	20–25
E19-14	Deferred tax asset with and without valuation account.	Moderate	20–25
E19-15	Deferred tax asset with previous valuation account.	Complex	20–25
E19-16	Deferred tax liability, change in tax rate, prepare section of income statement.	Complex	15–20
E19-17	Two temporary differences, tracked through 3 years, multiple rates.	Moderate	30–35
E19-18	Three differences, multiple rates, future taxable income.	Moderate	20–25
E19-19	Two differences, one rate, beginning deferred balance, compute pretax financial income.	Complex	25–30
E19-20	Two differences, no beginning deferred taxes, multiple rates.	Moderate	15–20
E19-21	Two temporary differences, multiple rates, future taxable income.	Moderate	20–25
E19-22	Two differences, one rate, first year.	Simple	15–20
E19-23	NOL carryback and carryforward, valuation account versus no valuation account.	Complex	30–35
E19-24	NOL carryback and carryforward, valuation account needed.	Complex	30–35
E19-25	NOL carryback and carryforward, valuation account needed.	Moderate	15–20
P19-1	Three differences, no beginning deferred taxes, multiple rates.	Complex	40–45
P19-2	One temporary difference, tracked for 4 years, one permanent difference, change in rate.	Complex	50–60
P19-3	Second year of depreciation difference, two differences, single rate, extraordinary item.	Complex	40–45
P19-4	Permanent and temporary differences, one rate.	Moderate	20–25
P19-5	NOL without valuation account.	Simple	20–25

## ASSIGNMENT CHARACTERISTICS TABLE (Continued)

<b>Item</b>	<b>Description</b>	<b>Level of Difficulty</b>	<b>Time (minutes)</b>
P19-6	Two differences, two rates, future income expected.	Moderate	20–25
P19-7	One temporary difference, tracked 3 years, change in rates, income statement presentation.	Complex	45–50
P19-8	Two differences, 2 years, compute taxable income and pretax financial income.	Complex	40–50
P19-9	Five differences, compute taxable income and deferred taxes, draft income statement.	Complex	40–45
CA19-1	Objectives and principles for accounting for income taxes.	Simple	15–20
CA19-2	Basic accounting for temporary differences.	Moderate	20–25
CA19-3	Identify temporary differences and classification criteria.	Complex	20–25
CA19-4	Accounting and classification of deferred income taxes.	Moderate	20–25
CA19-5	Explain computation of deferred tax liability for multiple tax rates.	Complex	20–25
CA19-6	Explain future taxable and deductible amounts, how carryback and carryforward affects deferred taxes.	Complex	20–25
CA19-7	Deferred taxes, income effects.	Moderate	20–25

# ANSWERS TO QUESTIONS

1. Pretax financial income is reported on the income statement and is often referred to as income before income taxes. Taxable income is reported on the tax return and is the amount upon which a company's income tax payable is computed.
2. One objective of accounting for income taxes is to recognize the amount of taxes payable or refundable for the current year. A second is to recognize deferred tax liabilities and assets for the future tax consequences of events that have already been recognized in the financial statements or tax returns.
3. A permanent difference is a difference between taxable income and pretax financial income that, under existing applicable tax laws and regulations, will not be offset by corresponding differences or "turn around" in other periods. Therefore, a permanent difference is caused by an item that: (1) is included in pretax financial income but never in taxable income, or (2) is included in taxable income but never in pretax financial income.

Examples of permanent differences are: (1) interest received on municipal obligations (such interest is included in pretax financial income but is not included in taxable income), (2) premiums paid on officers' life insurance policies in which the company is the beneficiary (such premiums are not allowable expenses for determining taxable income but are expenses for determining pretax financial income), and (3) fines and expenses resulting from a violation of law. Item (3), like item (2), is an expense which is not deductible for tax purposes.

4. A temporary difference is a difference between the tax basis of an asset or liability and its reported (carrying or book) amount in the financial statements that will result in taxable amounts or deductible amounts in future years when the reported amount of the asset is recovered or when the reported amount of the liability is settled. The temporary differences discussed in this chapter all result from differences between taxable income and pretax financial income which will reverse and result in taxable or deductible amounts in future periods.

Examples of temporary differences are: (1) Gross profit or gain on installment sales reported for financial reporting purposes at the date of sale and reported in tax returns when later collected. (2) Depreciation for financial reporting purposes is less than that deducted in tax returns in early years of assets' lives because of using an accelerated method of depreciation for tax purposes. (3) Rent and royalties taxed when collected, but deferred for financial reporting purposes and recognized as revenue when earned in later periods.

5. An originating temporary difference is the initial difference between the book basis and the tax basis of an asset or liability. A reversing difference occurs when a temporary difference that originated in prior periods is eliminated and the related tax effect is removed from the tax account.

6.	Book basis of assets	\$900,000
	Tax basis of assets	<u>700,000</u>
	Future taxable amounts	200,000
	Tax rate	<u>34%</u>
	Deferred tax liability (end of 2007)	<u>\$ 68,000</u>

**Questions Chapter 19 (Continued)**

7.	Book basis of asset	\$80,000	Deferred tax liability (end of 2007)	\$ 27,200
	Tax basis of asset	<u>0</u>	Deferred tax liability (beginning of 2007)	<u>68,000</u>
	Future taxable amounts	80,000	Deferred tax benefit for 2007	(40,800)
	Tax rate	<u>34%</u>	Income tax payable for 2007	<u>230,000</u>
	Deferred tax liability (end of 2007)	<u>\$27,200</u>	Total income tax expense for 2007	<u>\$189,200</u>

8. A future taxable amount will increase taxable income relative to pretax financial income in future periods due to temporary differences existing at the balance sheet date. A future deductible amount will decrease taxable income relative to pretax financial income in future periods due to existing temporary differences.

A deferred tax asset is recognized for all deductible temporary differences. However, a deferred tax asset should be reduced by a valuation account if, based on all available evidence, it is more likely than not that some portion or all of the deferred tax asset will not be realized. More likely than not means a level of likelihood that is slightly more than 50%.

9.	Taxable income	\$100,000	Future taxable amounts	\$90,000
	Tax rate	<u>40%</u>	Tax rate	<u>40%</u>
	Income tax payable	<u>\$ 40,000</u>	Deferred tax liability (end of 2007)	<u>\$36,000</u>
	Deferred tax liability (end of 2007)	\$ 36,000	Current tax expense	\$40,000
	Deferred tax liability (beginning of 2007)	<u>0</u>	Deferred tax expense	<u>36,000</u>
	Deferred tax expense for 2007	<u>\$ 36,000</u>	Income tax expense for 2007	<u>\$76,000</u>

10. Deferred tax accounts are reported on the balance sheet as assets and liabilities. They should be classified in a net current and a net noncurrent amount. An individual deferred tax liability or asset is classified as current or noncurrent based on the classification of the related asset or liability for financial reporting purposes. A deferred tax asset or liability is considered to be related to an asset or liability if reduction of the asset or liability will cause the temporary difference to reverse or turn around. A deferred tax liability or asset that is not related to an asset or liability for financial reporting purposes, including deferred tax assets related to loss carryforwards, shall be classified according to the expected reversal date of the temporary difference.
11. The balances in the deferred tax accounts should be analyzed and classified on the balance sheet in two categories: one for the **net** current amount, and one for the **net** noncurrent amount. This procedure is summarized as indicated below.
1. Classify the amounts as current or noncurrent. If an amount is related to a specific asset or liability, it should be classified in the same manner as the related asset or liability. If not so related, it should be classified on the basis of the expected reversal date.
  2. Determine the net current amount by summing the various deferred tax assets and liabilities classified as current. If the net result is an asset, report on the balance sheet as a current asset; if it is a liability, report as a current liability.
  3. Determine the net noncurrent amount by summing the various deferred tax assets and liabilities classified as noncurrent. If the net result is an asset, report on the balance sheet as a noncurrent asset ("other assets" section); if it is a liability, report as a long-term liability.
12. A deferred tax asset or liability is considered to be related to an asset or liability if reduction of the asset or liability will cause the temporary difference to reverse or turn around.

**Questions Chapter 19 (Continued)**

13.	Pretax financial income	\$550,000
	Interest income on municipal bonds	(70,000)
	Hazardous waste fine	30,000
	Depreciation (\$60,000 – \$45,000)	<u>15,000</u>
	Taxable income	525,000
	Tax rate	<u>30%</u>
	Income tax payable	<u>\$157,500</u>

14. \$200,000 (2010 taxable amount)  
       5% (30% – 25%)  
\$ 10,000 Decrease in deferred tax liability at the end of 2007

Deferred Tax Liability.....	10,000	
Income Tax Expense.....		10,000

15. Some of the reasons for requiring these disclosures are:
- (a) Assessment of the quality of earnings. Many investors seeking to assess the quality of a company's earnings are interested in the reconciliation of pretax financial income to taxable income. Earnings that are enhanced by a favorable tax effect should be examined carefully, particularly if the tax effect is nonrecurring.
  - (b) Better prediction of future cash flows. Examination of the deferred portion of income tax expense provides information as to whether taxes payable are likely to be higher or lower in the future.

16. The carryback provision permits a company to carry a net operating loss back two years and receive refunds for income taxes paid in those years. The loss must be applied to the second preceding year first and then to the preceding year.

The carryforward provision permits a company to carry forward a net operating loss twenty years, offsetting future taxable income. The loss carryback can be accounted for with more certainty because the company knows whether it had taxable income in the past; such is not the case with income in the future.

17. The company may choose to carry the net operating loss forward, or carry it back and then forward for tax purposes. To forego the two-year carryback might be advantageous where a taxpayer had tax credit carryovers that might be wiped out and lost because of the carryback of the net operating loss. In addition, tax rates in the future might be higher, and therefore on a present value basis, it is advantageous to carry forward rather than carry back.

For financial reporting purposes, the benefits of a net operating loss carryback are recognized in the loss year. The benefits of an operating loss carryforward are recognized as a deferred tax asset in the loss year. If it is more likely than not that the asset will be realized, the tax benefit of the loss is also recognized by a credit to Income Tax Expense on the income statement. Conversely, if it is more likely than not that the loss carryforward will not be realized in future years, then an allowance account is established in the loss year and no tax benefit is recognized on the income statement of the loss year.

18. Many believe that future deductible amounts arising from net operating loss carryforwards are different from future deductible amounts arising from normal operations. One rationale provided is that a deferred tax asset arising from normal operations results in a tax prepayment—a prepaid tax asset. In the case of loss carryforwards, no tax prepayment has been made.

Others argue that realization of a loss carryforward is less likely—and thus should require a more severe test—than for a net deductible amount arising from normal operations. Some have suggested that the test be changed from “more likely than not” to “probable” realization. Others have indicated that because of the nature of net operating losses, deferred tax assets should never be established for these items.

# SOLUTIONS TO BRIEF EXERCISES

## BRIEF EXERCISE 19-1

2007 taxable income	\$110,000
Tax rate	<u>X 40%</u>
12/31/07 income taxes payable	<u>\$ 44,000</u>

## BRIEF EXERCISE 19-2

Excess depreciation on tax return	\$30,000
Tax rate	<u>30%</u>
Deferred tax liability	<u>\$ 9,000</u>

## BRIEF EXERCISE 19-3

Income Tax Expense.....	\$67,500***	
Deferred Tax Liability .....		9,000**
Income Tax Payable.....		<u>58,500*</u>

\*\$195,000 x 30% = \$58,500

\*\*\$30,000 x 30% = \$9,000

\*\*\*\$58,500 + \$9,000 = \$67,500

The \$9,000 deferred tax liability should be classified as a noncurrent liability. The balances in the deferred tax accounts should be classified in the same manner as the related asset. Since property, plant, and equipment is a noncurrent asset, noncurrent liability is the proper classification for the deferred tax liability.

## BRIEF EXERCISE 19-4

Deferred tax liability, 12/31/07	\$42,000
Deferred tax liability, 12/31/06	<u>25,000</u>
Deferred tax expense for 2007	17,000
Current tax expense for 2007	<u>43,000</u>
Total tax expense for 2007	<u>\$60,000</u>

### BRIEF EXERCISE 19-5

Book value of warranty liability	\$125,000
Tax basis of warranty liability	<u>0</u>
Cumulative temporary difference at 12/31/07	125,000
Tax rate	X 40%
12/31/07 deferred tax asset	<u>\$ 50,000</u>

### BRIEF EXERCISE 19-6

Deferred tax asset, 12/31/07	\$59,000
Deferred tax asset, 12/31/06	<u>35,000</u>
Deferred tax benefit for 2007	(24,000)
Current tax expense for 2007	<u>61,000</u>
Total tax expense for 2007	<u>\$37,000</u>

### BRIEF EXERCISE 19-7

Income Tax Expense .....	80,000	
Allowance to Reduce Deferred Tax Asset to Expected Realizable Value.....		80,000

### BRIEF EXERCISE 19-8

Income before income taxes		\$175,000
Income tax expense		
Current	\$40,000	
Deferred	<u>30,000</u>	<u>70,000</u>
Net income		<u>\$105,000</u>

### BRIEF EXERCISE 19-9

Income Tax Expense .....	71,100	
Income Tax Payable (\$144,000* X 45%) .....		64,800
Deferred Tax Liability (\$14,000 X 45%).....		<u>6,300</u>
*\$154,000 + \$4,000 – \$14,000 = \$144,000		

**BRIEF EXERCISE 19-10**

<b>Year</b>	<b>Future taxable amount</b>	<b>X</b>	<b>Tax Rate</b>	<b>=</b>	<b>Deferred tax liability</b>
2008	\$ 42,000		34%		\$ 14,280
2009	294,000		34%		99,960
2010	294,000		40%		117,600
					<u>\$231,840</u>

**BRIEF EXERCISE 19-11**

Income Tax Expense.....	80,000	
Deferred Tax Liability (\$2,000,000 X 4%).....		80,000

**BRIEF EXERCISE 19-12**

Income Tax Refund Receivable.....	135,000	
Benefit Due to Loss Carryback .....		135,000
\$97,500 + [(\$450,000–\$325,000) X 30%]		

**BRIEF EXERCISE 19-13**

Income Tax Refund Receivable (\$400,000 X .40).....	160,000	
Benefit Due to Loss Carryback .....		160,000
Deferred Tax Asset (\$500,000 – \$400,000) X .40 .....	40,000	
Benefit Due to Loss Carryforward.....		40,000

**BRIEF EXERCISE 19-14**

<b>Income Tax Refund Receivable (\$400,000 X .40) .....</b>	<b>160,000</b>	
<b>    Benefit Due to Loss Carryback.....</b>		<b>160,000</b>
<b>Deferred Tax Asset (\$500,000 – \$400,000) X .40.....</b>	<b>40,000</b>	
<b>    Benefit Due to Loss Carryforward .....</b>		<b>40,000</b>
<b>Benefit Due to Loss Carryforward .....</b>	<b>40,000</b>	
<b>    Allowance to Reduce Deferred Tax Asset     to Expected Realizable Value.....</b>		<b>40,000</b>

**BRIEF EXERCISE 19-15**

<b>Current assets</b>		
<b>Deferred tax asset (\$52,000 – \$38,000)</b>		<b>\$14,000</b>
<b>Long-term liabilities</b>		
<b>Deferred tax liability (\$96,000 – \$27,000)</b>		<b>\$69,000</b>



**EXERCISE 19-2 (15–20 minutes)**

(a) Pretax financial income for 2006	\$300,000
Excess of tax depreciation over book depreciation	(40,000)
Rent received in advance	<u>20,000</u>
Taxable income	<u>\$280,000</u>

(b) Income Tax Expense .....	120,000	
Deferred Tax Asset .....	8,000*	
Income Tax Payable (\$280,000 X .40).....		112,000
Deferred Tax Liability .....		16,000**

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
**Depreciation	\$40,000	40%		\$16,000
*Unearned rent	(20,000)	40%	\$(8,000)	
			<u>\$(8,000)</u>	<u>\$16,000</u>

(c) Income Tax Expense .....	134,000*	
Deferred Tax Liability (\$10,000 X .40) .....	4,000	
Income Tax Payable (\$325,000 X .40).....		130,000
Deferred Tax Asset (\$20,000 X .40).....		8,000

\*( $\$130,000 - \$4,000 + \$8,000$ )

**EXERCISE 19-3 (15–20 minutes)**

(a) Taxable income for 2007	\$405,000
Enacted tax rate	<u>40%</u>
Income tax payable for 2007	<u>\$162,000</u>

(b)	<u>Future Years</u>		
	2008	2009	Total
Future taxable (deductible) amounts	\$175,000	\$175,000	<u>\$350,000</u>
Tax Rate	<u>40%</u>	<u>40%</u>	
Deferred tax liability (asset)	<u>\$ 70,000</u>	<u>\$ 70,000</u>	<u>\$140,000</u>

**EXERCISE 19-3 (Continued)**

Deferred tax liability at the end of 2007		\$140,000
Deferred tax liability at the beginning of 2007		<u>92,000</u>
Deferred tax expense for 2007 (increase required in deferred tax liability)		48,000
Current tax expense for 2007		<u>162,000</u>
Income tax expense for 2007		<u>\$210,000</u>

Income Tax Expense.....	210,000	
Income Tax Payable.....		162,000
Deferred Tax Liability.....		48,000

(c) Income before income taxes		\$525,000
Income tax expense		
Current	\$162,000	
Deferred	<u>48,000</u>	<u>210,000</u>
Net income		<u>\$315,000</u>

**Note to instructor:** Because of the flat tax rate for all years, the amount of cumulative temporary difference existing at the beginning of the year can be calculated by dividing \$92,000 by 40%, which equals \$230,000. The difference between the \$230,000 cumulative temporary difference at the beginning of 2007 and the \$350,000 cumulative temporary difference at the end of 2007 represents the net amount of temporary difference originating during 2007 (which is \$120,000). With this information, we can reconcile pretax financial income with taxable income as follows:

Pretax financial income		\$525,000
Temporary difference originating giving rise to net future taxable amounts		<u>(120,000)</u>
Taxable income		\$405,000

**EXERCISE 19-4 (15–20 minutes)**

(a) Pretax financial income for 2007	\$70,000
Excess depreciation per tax return	(16,000)
Excess rent collected over rent earned	22,000
Nondeductible fines	<u>11,000</u>
Taxable income	<u>\$87,000</u>

Taxable income	\$87,000
Enacted tax rate	<u>30%</u>
Income tax payable	<u>\$26,100</u>

## EXERCISE 19-4 (Continued)

(b) Income Tax Expense .....	24,300	
Deferred Tax Asset .....	6,600	
Income Tax Payable.....		26,100
Deferred Tax Liability .....		4,800

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
Depreciation	\$16,000	30%		\$4,800
Unearned rent	<u>(22,000)</u>	30%	<u>\$(6,600)</u>	
Totals	<u>\$ (6,000)</u>		<u>\$(6,600)</u>	<u>\$4,800*</u>

\*Because of a flat tax rate, these totals can be reconciled:  
 $\$ (6,000) \times 30\% = \$ (6,600) + \$ 4,800.$

Deferred tax liability at the end of 2007	\$4,800
Deferred tax liability at the beginning of 2007	<u>0</u>
Deferred tax expense for 2007 (increase required in deferred tax liability)	<u>\$4,800</u>
Deferred tax asset at the end of 2007	\$ 6,600
Deferred tax asset at the beginning of 2007	<u>0</u>
Deferred tax benefit for 2007 (increase required in deferred tax asset)	<u>\$(6,600)</u>
Deferred tax expense for 2007	\$ 4,800
Deferred tax benefit for 2007	<u>(6,600)</u>
Net deferred tax benefit for 2007	(1,800)
Current tax expense for 2007 (Income tax payable)	<u>26,100</u>
Income tax expense for 2007	<u>\$24,300</u>

(c) Income before income taxes		\$70,000
Income tax expense		
Current	\$26,100	
Deferred	<u>(1,800)</u>	<u>24,300</u>
Net income		<u>\$45,700</u>

Note: The details on the current/deferred tax expense may be presented  
in a note to the financial statements.

(d)  $\frac{\$24,300}{\$70,000} = 34.7\%$  effective tax rate for 2007.

**EXERCISE 19-5 (15–20 minutes)**

(a) Taxable income		<b>\$95,000</b>
Enacted tax rate		<u>40%</u>
Income tax payable		<b><u>\$38,000</u></b>

(b) Income Tax Expense.....	80,000	
Deferred Tax Asset.....	14,000	
Income Tax Payable .....		38,000
Deferred Tax Liability.....		56,000

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
First one	\$240,000	40%		\$96,000
Second one	<u>(35,000)</u>	40%	<u>\$(14,000)</u>	
Totals	<u>\$205,000</u>		<u>\$(14,000)</u>	<u>\$96,000</u>

\*Because of a flat tax rate, these totals can be reconciled:  
 $\$205,000 \times 40\% = \$(14,000) + \$96,000.$

Deferred tax liability at the end of 2007	\$96,000
Deferred tax liability at the beginning of 2007	<u>40,000</u>
Deferred tax expense for 2007 (increase required in deferred tax liability)	<b><u>\$56,000</u></b>
Deferred tax asset at the end of 2007	\$ 14,000
Deferred tax asset at the beginning of 2007	<u>0</u>
Deferred tax benefit for 2007 (increase required in deferred tax asset)	<b><u>\$(14,000)</u></b>
Deferred tax expense for 2007	\$56,000
Deferred tax benefit for 2007	<u>(14,000)</u>
Net deferred tax benefit for 2007	42,000
Current tax expense for 2007 (Income tax payable)	<u>38,000</u>
Income tax expense for 2007	<b><u>\$80,000</u></b>

(c) Income before income taxes		<b>\$200,000</b>
Income tax expense		
Current	\$38,000	
Deferred	<u>42,000</u>	<u>80,000</u>
Net income		<b><u>\$120,000</u></b>

**Note:** The details on the current/deferred tax expense can be disclosed in the notes to the financial statements.

## EXERCISE 19-5 (Continued)

**Note to instructor:** Because of the flat tax rate for all years, the amount of cumulative temporary difference existing at the beginning of the year can be calculated by dividing the \$40,000 balance in Deferred Tax Liability by 40%, which equals \$100,000. This information may now be combined with the other facts given in the exercise to reconcile pretax financial income with taxable income as follows:

Pretax financial income	\$200,000
Net originating temporary difference giving rise to future taxable amounts (\$240,000 – \$100,000)	(140,000)
Originating temporary differences giving rise to future deductible amounts	<u>35,000</u>
Taxable income	<u>\$ 95,000</u>

## EXERCISE 19-6 (10–15 minutes)

(a) (2)	(e) (2)	(i) (3)*
(b) (1)	(f) (2)	(j) (1)
(c) (3)	(g) (3)	(k) (1)
(d) (1)	(h) (3)	

\*When the cost method is used for financial reporting purposes, the dividends are recognized in the income statement in the period they are received, which is the same period they be must be reported on the tax return. However, depending on the level of ownership by the investor, 70% or 80% of the dividends received from other U.S. corporations may be excluded from taxation because of a “dividends received deduction.” These tax-exempt dividends create a permanent difference.

## EXERCISE 19-7 (10–15 minutes)

- (a) greater than
- (b) \$190,000 = (\$76,000 divided by 40%)
- (c) are not
- (d) less than
- (e) benefit; \$15,000
- (f) \$3,500 = [(\$100,000 X 40%) – \$36,500]
- (g) debit
- (h) \$59,000 = (\$82,000 – \$23,000)
- (i) more likely than not; will not be
- (j) benefit

**EXERCISE 19-8 (10–15 minutes)**

(a)	<u>2007</u>		
Income Tax Expense.....		336,000	
Deferred Tax Asset (\$20,000 X 40%).....		8,000	
Deferred Tax Liability (\$30,000 X 40%).....			12,000
Income Tax Payable (\$830,000 X 40%).....			332,000

	<u>2008</u>		
Income Tax Expense.....		364,000	
Deferred Tax Asset (\$10,000 X 40%).....		4,000	
Deferred Tax Liability (\$40,000 X 40%).....			16,000
Income Tax Payable (\$880,000 X 40%).....			352,000

	<u>2009</u>		
Income Tax Expense.....		378,000	
Deferred Tax Asset (\$8,000 X 40%).....		3,200	
Deferred Tax Liability (\$10,000 X 40%).....			4,000
Income Tax Payable (\$943,000 X 40%).....			377,200

(b)			
Current assets			
Deferred tax asset (\$8,000 + \$4,000 + \$3,200)			\$15,200
Long-term liabilities			
Deferred tax liability (\$12,000 + \$16,000 + \$4,000)			\$32,000

The warranty is classified as current because settlement is within one year.

The deferred tax liability is noncurrent because the related asset is noncurrent.

(c)			
Pretax financial income			\$945,000
Income tax expense			
Current		\$377,200	
Deferred (\$4,000 – \$3,200)		<u>800</u>	<u>378,000</u>
Net Income			<u>\$567,000</u>

**Note:** The details on the current/deferred tax expense can be disclosed in the notes to the financial statements.

**EXERCISE 19-9 (15–20 minutes)**

	<b>2004</b>		
Income Tax Expense .....		<b>32,000</b>	
Income Tax Payable (\$80,000 X 40%) .....			<b>32,000</b>
	<b>2005</b>		
Income Tax Refund Receivable .....		<b>72,000</b>	
(\$160,000 X 45%)			
Benefit Due to Loss Carryback (Income Tax Expense).....			<b>72,000</b>
	<b>2006</b>		
Income Tax Refund Receivable .....		<b>32,000</b>	
Benefit Due to Loss Carryback (Income Tax Expense).....			<b>32,000</b>
(\$80,000 X 40%)			
Deferred Tax Asset .....		<b>120,000</b>	
Benefit Due to Loss Carryforward (Income Tax Expense).....			<b>120,000</b>
[40% X (\$380,000 – \$80,000)]			
	<b>2007</b>		
Income Tax Expense .....		<b>48,000</b>	
Deferred Tax Asset (40% X \$120,000).....			<b>48,000</b>
	<b>2008</b>		
Income Tax Expense .....		<b>40,000</b>	
Deferred Tax Asset (\$100,000 X 40%).....			<b>40,000</b>

**Note:** Benefit Due to Loss Carryback and Benefit Due to Loss Carryforward amounts are negative components of income tax expense.

**EXERCISE 19-10 (20–25 minutes)**

<b>(a)</b>	<b>Income Tax Refund Receivable.....</b>	<b>29,950</b>	
	<b>[((\$17,000 X 35%) + (\$48,000 X 50%)]</b>		
	<b>Benefit Due to Loss Carryback .....</b>		<b>29,950</b>
	<b>Deferred Tax Asset.....</b>	<b>34,000</b>	
	<b>Benefit Due to Loss Carryforward.....</b>		<b>34,000</b>
	<b>(\$150,000 – \$17,000 – \$48,000 = \$85,000)</b>		
	<b>(\$85,000 X 40% = \$34,000)</b>		
<b>(b)</b>	<b>Operating loss before income taxes</b>		<b>\$(150,000)</b>
	<b>Income tax benefit</b>		
	<b>Benefit due to loss carryback</b>	<b>\$29,950</b>	
	<b>Benefit due to loss carryforward</b>	<b>34,000</b>	<b>63,950</b>
	<b>Net loss</b>		<b><u>\$ (86,050)</u></b>
<b>(c)</b>	<b>Income Tax Expense.....</b>	<b>36,000</b>	
	<b>Deferred Tax Asset.....</b>		<b>34,000</b>
	<b>Income Tax Payable .....</b>		<b>2,000</b>
	<b>[40% X (\$90,000 – \$85,000)]</b>		
<b>(d)</b>	<b>Income before income taxes</b>		<b>\$90,000</b>
	<b>Income tax expense</b>		
	<b>Current</b>	<b>\$ 2,000</b>	
	<b>Deferred</b>	<b>34,000</b>	<b>36,000</b>
	<b>Net income</b>		<b><u>\$54,000</u></b>
<b>(e)</b>	<b>Income Tax Refund Receivable.....</b>	<b>24,000</b>	
	<b>[((\$30,000 X 40%) + (\$30,000 X 40%)]</b>		
	<b>Benefit Due to Loss Carryback .....</b>		<b>24,000</b>
<b>(f)</b>	<b>Operating loss before income taxes</b>		<b>\$(60,000)</b>
	<b>Income tax benefit</b>		
	<b>Benefit due to loss carryback</b>		<b>24,000</b>
	<b>Net loss</b>		<b><u>\$(36,000)</u></b>

### EXERCISE 19-11 (10–15 minutes)

Temporary Difference	Resulting Deferred Tax		Related Balance Sheet Account	Classification
	(Asset)	Liability		
Depreciation		\$200,000	Plant Assets	Noncurrent
Lawsuit obligation	\$(50,000)		Lawsuit Obligation	Current
Installment sale		48,000*	Installment Receivable	Current
Installment sale		177,000**	Installment Receivable	Noncurrent
<b>Totals</b>	<u>\$(50,000)</u>	<u>\$425,000</u>		

\*\$120,000 X 40% = \$48,000

\*\*\$225,000 – \$48,000 = \$177,000

#### Current assets

Deferred tax asset (\$50,000 – \$48,000) \$ 2,000

#### Long-term liabilities

Deferred tax liability (\$200,000 + \$177,000) 377,000

### EXERCISE 19-12 (20–25 minutes)

- (a) To complete a reconciliation of pretax financial income and taxable income, solving for the amount of pretax financial income, we must first determine the amount of temporary differences arising or reversing during the year. To accomplish that, we must determine the amount of cumulative temporary differences underlying the beginning balances of the deferred tax liability of \$60,000 and the deferred tax asset of \$20,000.

\$60,000 ÷ 40% = \$150,000 beginning cumulative temporary difference.

\$20,000 ÷ 40% = \$ 50,000 beginning cumulative temporary difference.

Cumulative temporary difference at 12/31/07 which will result in future taxable amounts	\$230,000
Cumulative temporary difference at 1/1/07 which will result in future taxable amounts	<u>150,000</u>
Originating difference in 2007 which will result in future taxable amounts	<u>\$ 80,000</u>

**EXERCISE 19-12 (Continued)**

Cumulative temporary difference at 12/31/07 which will result in future deductible amounts	\$95,000
Cumulative temporary difference at 1/1/07 which will result in future deductible amounts	<u>50,000</u>
Originating difference in 2007 which will result in future deductible amounts	<u>\$45,000</u>
Pretax financial income	\$ X
Originating difference which will result in future taxable amounts	(80,000)
Originating difference which will result in future deductible amounts	<u>45,000</u>
Taxable income for 2007	<u>\$105,000</u>

Solving for pretax financial income:  
 $X - \$80,000 + \$45,000 = \$105,000$   
 $X = \$140,000 = \text{Pretax financial income}$

(b) Income Tax Expense.....	56,000	
Deferred Tax Asset.....	18,000	
Income Tax Payable .....		42,000
(\$105,000 X 40%)		
Deferred Tax Liability.....		32,000

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
First one	\$230,000	40%		\$92,000
Second one	<u>(95,000)</u>	40%	<u>\$(38,000)</u>	
Totals	<u>\$135,000</u>		<u>\$(38,000)</u>	<u>\$92,000*</u>

\*Because of a flat tax rate, these totals can now be reconciled:  
 $\$135,000 \times 40\% = \$(38,000) + \$92,000.$

Deferred tax liability at the end of 2007	\$92,000
Deferred tax liability at the beginning of 2007	<u>60,000</u>
Deferred tax expense for 2007 (net increase required in deferred tax liability)	<u>\$32,000</u>

**EXERCISE 19-12 (Continued)**

Deferred tax asset at the end of 2007			<b>\$ 38,000</b>
Deferred tax asset at the beginning of 2007			<u>20,000</u>
Deferred tax benefit for 2007 (net increase required in deferred tax asset)			<u><b>\$(18,000)</b></u>
Deferred tax expense for 2007			<b>\$32,000</b>
Deferred tax benefit for 2007			<u>(18,000)</u>
Net deferred tax expense (benefit) for 2007			<b>14,000</b>
Current tax expense for 2007 (Income tax payable)			<u>42,000</u>
Income tax expense for 2007			<u><b>\$56,000</b></u>
(c) Income before income taxes			<b>\$140,000</b>
Income tax expense			
Current		<b>\$42,000</b>	
Deferred		<u>14,000</u>	<u>56,000</u>
Net income			<u><b>\$ 84,000</b></u>

(d) Because of the same tax rate for all years involved and no permanent differences, the effective rate should equal the statutory rate. The following calculation proves that it does:  $\$56,000 \div \$140,000 = 40\%$  effective tax rate for 2007.

**EXERCISE 19-13 (20–25 minutes)**

(a) Income Tax Expense .....	<b>178,500</b>	
Income Tax Payable.....		<b>128,000</b>
Deferred Tax Liability .....		<b>50,500</b>
Taxable income for 2006		<b>\$320,000</b>
Enacted tax rate		<u>40%</u>
Income tax payable for 2006		<u><b>\$128,000</b></u>

	Future Years				Total
	2007	2008	2009	2010	
Future taxable (deductible) amounts	\$60,000	\$50,000	\$40,000	\$30,000	<u>\$180,000</u>
Enacted tax rate	<u>30%</u>	<u>30%</u>	<u>25%</u>	<u>25%</u>	
Deferred tax liability (asset)	<u>\$18,000</u>	<u>\$15,000</u>	<u>\$10,000</u>	<u>\$ 7,500</u>	<u>\$ 50,500</u>

**EXERCISE 19-13 (Continued)**

Deferred tax liability at the end of 2006	\$ 50,500
Deferred tax liability at the beginning of 2006	<u>0</u>
Deferred tax expense for 2006 (net increase required in deferred tax liability)	50,500
Current tax expense for 2006	<u>128,000</u>
Income tax expense for 2006	<u>\$178,500</u>

(b) Income Tax Expense.....	156,500	
Income Tax Payable .....		128,000
Deferred Tax Liability.....		28,500

The income tax payable for 2006 of \$128,000 and the \$50,500 balance for Deferred Tax Liability at December 31, 2006, would be computed the same as they were for part (a) of this exercise. The resulting change in the deferred tax liability and total income tax expense would be computed as follows:

Deferred tax liability at the end of 2006	\$ 50,500
Deferred tax liability at the beginning of 2006	<u>22,000</u>
Deferred tax expense for 2006 (net increase required in deferred tax liability)	28,500
Current tax expense for 2006 (Income tax payable)	<u>128,000</u>
Income tax expense for 2006	<u>\$156,500</u>

**EXERCISE 19-14 (20–25 minutes)**

(a) Income Tax Expense.....	298,000	
Deferred Tax Asset.....	30,000	
Income Tax Payable .....		328,000

Taxable income	\$820,000
Enacted tax rate	<u>40%</u>
Income tax payable	<u>\$328,000</u>

Date	Cumulative Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
12/31/07	\$(450,000)	40%	<u>\$(180,000)</u>	

**EXERCISE 19-14 (Continued)**

Deferred tax asset at the end of 2007	\$180,000
Deferred tax asset at the beginning of 2007	<u>150,000</u>
Deferred tax benefit for 2007 (increase in deferred tax asset account)	(30,000)
Current tax expense for 2007 (Income tax payable)	<u>328,000</u>
Income tax expense for 2007	<u>\$298,000</u>

(b) The journal entry at the end of 2007 to establish a valuation account:

Income Tax Expense .....	30,000	
Allowance to Reduce Deferred Tax Asset to Expected Realizable Value.....		30,000

Note to instructor: Although not requested by the instructions, the pretax financial income can be computed by completing the following reconciliation:

Pretax financial income for 2007	\$	X
Originating difference which will result in future deductible amounts		<u>75,000<sup>a</sup></u>
Taxable income for 2007		<u>\$820,000</u>

Solving for pretax financial income:  
 $X + \$75,000 = \$820,000$   
 $X = \$745,000 = \text{Pretax financial income}$

<sup>a</sup> $\$450,000 - \$375,000 = \$75,000$

**EXERCISE 19-15 (20–25 minutes)**

(a) Income Tax Expense .....	298,000	
Deferred Tax Asset .....	30,000	
Income Tax Payable.....		328,000
Allowance to Reduce Deferred Tax Asset to Expected Realizable Value.....	45,000	
Income Tax Expense .....		45,000
Taxable income		\$820,000
Enacted tax rate		<u>40%</u>
Income tax payable		<u>\$328,000</u>

**EXERCISE 19-15 (Continued)**

Date	Cumulative Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
12/31/07	\$(450,000)	40%	<u>\$(180,000)</u>	
Deferred tax asset at the end of 2007				\$180,000
Deferred tax asset at the beginning of 2007				<u>150,000</u>
Deferred tax benefit for 2007 (increase in deferred tax asset account)				(30,000)
Current tax expense for 2007 (Income tax payable)				<u>328,000</u>
Income tax expense for 2007				<u>\$298,000</u>
Valuation account needed at the end of 2007				\$ 0
Valuation account balance at the beginning of 2007				<u>45,000</u>
Reduction in valuation account during 2007				<u>\$45,000</u>

(b) Income Tax Expense.....	298,000	
Deferred Tax Asset.....	30,000	
Income Tax Payable .....		328,000
Income Tax Expense.....	135,000	
Allowance to Reduce Deferred Tax Asset to Expected Realizable Value .....		135,000
Taxable income		\$820,000
Enacted tax rate		40%
Income tax payable		<u>\$328,000</u>

Date	Cumulative Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
12/31/07	\$(450,000)	40%	<u>\$(180,000)</u>	
Deferred tax asset at the end of 2007				\$180,000
Deferred tax asset at the beginning of 2007				<u>150,000</u>
Deferred tax benefit for 2007 (increase in deferred tax asset account)				(30,000)
Current tax expense for 2007 (Income tax payable)				<u>328,000</u>
Income tax expense for 2007				<u>\$298,000</u>

## EXERCISE 19-15 (Continued)

Valuation account needed at the end of 2007	\$180,000
Valuation account balance at the beginning of 2007	<u>45,000</u>
Increase in valuation account during 2007	<u>\$135,000</u>

**Note to instructor:** Although not requested by the instructions, the pretax financial income can be computed by completing the following reconciliation:

Pretax financial income for 2007	\$ X
Originating difference which will result in future deductible amounts	<u>75,000<sup>a</sup></u>
Taxable income for 2007	<u>\$820,000</u>

Solving for pretax financial income:

$$X + \$75,000 = \$820,000$$

$$X = \$745,000 = \text{Pretax financial income}$$

$$^a \$450,000 - \$375,000 = \$75,000.$$

## EXERCISE 19-16 (15–20 minutes)

(a)

	Future Years		Total
	2007	2008	
Future taxable (deductible) amounts	\$1,500,000	\$1,500,000	<u>\$3,000,000</u>
Tax rate	<u>40%*</u>	<u>34%</u>	
Deferred tax liability (asset)	<u>\$ 600,000</u>	<u>\$ 510,000</u>	<u>\$1,110,000</u>

\*The prior tax rate of 40% is computed by dividing the \$1,200,000 balance of the deferred tax liability account at January 1, 2006, by the \$3,000,000 cumulative temporary difference at that same date.

Resulting Deferred Tax		Related Balance Sheet Account	Classification
(Asset)	Liability		
	\$600,000	Installment Receivable	Current
	\$510,000	Installment Receivable	Noncurrent*

**EXERCISE 19-16 (Continued)**

**\*One-half of the installment receivable is classified as a current asset and one-half is noncurrent. Therefore, the deferred tax liability related to the portion of the receivable coming due in 2007 is current and the deferred tax liability balance related to the portion of the receivable coming due in 2008 is noncurrent.**

<b>(b) Deferred Tax Liability .....</b>	<b>90,000</b>	
<b>Income Tax Expense.....</b>		<b>90,000</b>

**There are no changes during 2006 in the cumulative temporary difference. The entire change in the deferred tax liability account is due to the change in the enacted tax rate. That change is computed as follows:**

<b>Deferred tax liability at the end of 2006</b>		<b>\$1,110,000</b>
<b>(computed in (a))</b>		
<b>Deferred tax liability at the beginning of 2006</b>		<u><b>1,200,000</b></u>
<b>Deferred tax benefit for 2006 due to change</b>		
<b>in enacted tax rate (decrease in deferred</b>		
<b>tax liability required)</b>		<u><b>\$ (90,000)</b></u>

<b>(c) Income before income taxes</b>		<b>\$5,000,000*</b>
<b>Income tax expense</b>		
<b>Current</b>	<b>\$2,000,000**</b>	
<b>Adjustment due to change</b>		
<b>in tax rate</b>	<u><b>(90,000)</b></u>	<u><b>1,910,000</b></u>
<b>Net income</b>		<u><b>\$3,090,000</b></u>

**\*Pretax financial income is equal to the taxable income for 2006 because there were no changes in the cumulative temporary difference and no permanent differences.**

<b>**Taxable income for 2006</b>	<b>\$5,000,000</b>
<b>Tax rate for 2006 (computed in (a))</b>	<u><b>40%</b></u>
<b>Current tax expense</b>	<u><b>\$2,000,000</b></u>

**Current tax expense for 2006 would also need to be recorded. The entry would be a debit to Income Tax Expense and a credit to Income Tax Payable for \$2,000,000.**

## EXERCISE 19-17 (30–35 minutes)

Journal entry at December 31, 2006:

Income Tax Expense .....	67,900	
Deferred Tax Asset .....	4,500	
Income Tax Payable.....		65,200
Deferred Tax Liability .....		7,200

Taxable income for 2006	\$163,000
Enacted tax rate	40%
Income tax payable for 2006	<u>\$ 65,200</u>

The deferred tax account balances at December 31, 2006, are determined as follows:

Temporary Difference	Future Taxable (Deductible) Amounts	Rate	Deferred Tax	
			(Asset)	Liability
Installment sales	\$16,000	45%		\$7,200
Warranty costs	<u>(10,000)</u>	45%	<u>\$(4,500)</u>	
Totals	<u>\$ 6,000</u>		<u>\$(4,500)</u>	<u>\$7,200*</u>

\*Because all deferred taxes were computed at the same rate, these totals can be reconciled as follows:  $\$6,000 \times 45\% = \$(4,500) + \$7,200$ .

Deferred tax liability at the end of 2006	\$7,200
Deferred tax liability at the beginning of 2006	<u>0</u>
Deferred tax expense for 2006 (net increase required in deferred tax liability)	<u>\$7,200</u>
Deferred tax asset at the end of 2006	\$ 4,500
Deferred tax asset at the beginning of 2006	<u>0</u>
Deferred tax expense (benefit) for 2006 (net increase required in deferred tax asset)	<u>\$(4,500)</u>
Deferred tax expense for 2006	\$ 7,200
Deferred tax benefit for 2006	<u>(4,500)</u>
Net deferred tax expense for 2006	2,700
Current tax expense for 2006 (Income tax payable)	<u>65,200</u>
Income tax expense for 2006	<u>\$67,900</u>

## EXERCISE 19-17 (Continued)

Journal entry at December 31, 2007:

Income Tax Expense.....	94,500	
Deferred Tax Liability .....	3,600	
Income Tax Payable .....		95,850
Deferred Tax Asset.....		2,250

Taxable income	\$213,000
Enacted tax rate	45%
Income tax payable for 2007	<u>\$ 95,850</u>

The deferred tax account balances at December 31, 2007, are determined as follows:

Temporary Difference	Future Taxable (Deductible) Amounts	Rate	Deferred Tax	
			(Asset)	Liability
Installment sales	\$8,000	45%		\$3,600
Warranty costs	<u>(5,000)</u>	45%	<u>\$(2,250)</u>	
Totals	<u>\$3,000</u>		<u>\$(2,250)</u>	<u>\$3,600*</u>

\*Because all deferred taxes were computed at the same rate, these totals can be reconciled as follows:  $\$3,000 \times 45\% = \$(2,250) + \$3,600$ .

Deferred tax liability at the end of 2007	\$ 3,600
Deferred tax liability at the beginning of 2007	<u>7,200</u>
Deferred tax benefit for 2007 (decrease required in deferred tax liability)	<u>\$(3,600)</u>
Deferred tax asset at the end of 2007	\$2,250
Deferred tax asset at the beginning of 2007	<u>4,500</u>
Deferred tax expense for 2007 (decrease required in deferred tax asset)	<u>\$2,250</u>
Deferred tax benefit for 2007	\$ (3,600)
Deferred tax expense for 2007	<u>2,250</u>
Net deferred tax benefit for 2007	(1,350)
Current tax expense for 2007	<u>95,850</u>
Income tax expense for 2007	<u>\$94,500</u>

**EXERCISE 19-17 (Continued)**

Journal entry at December 31, 2008:

Income Tax Expense .....	40,500	
Deferred Tax Liability .....	3,600	
Income Tax Payable.....		41,850
Deferred Tax Asset.....		2,250
Taxable income for 2008		\$93,000
Enacted tax rate		<u>45%</u>
Income tax payable for 2008		<u>\$41,850</u>
Deferred tax liability at the end of 2008		\$ 0
Deferred tax liability at the beginning of 2008		<u>3,600</u>
Deferred tax benefit for 2008 (decrease required in deferred tax liability)		<u>\$(3,600)</u>
Deferred tax asset at the end of 2008		\$ 0
Deferred tax asset at the beginning of 2008		<u>2,250</u>
Deferred tax expense for 2008 (decrease required in deferred tax asset)		<u>\$2,250</u>
Deferred tax benefit for 2008		\$ (3,600)
Deferred tax expense for 2008		<u>2,250</u>
Net deferred tax benefit for 2008		(1,350)
Current tax expense for 2008		<u>41,850</u>
Income tax expense for 2008		<u>\$40,500</u>

**EXERCISE 19-18 (20–25 minutes)**

(a)

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	December 31, 2007 Deferred Tax	
			(Asset)	Liability
Installment sales	\$ 96,000	40%		\$38,400
Depreciation	30,000	40%		12,000
Unearned rent	<u>(100,000)</u>	40%	<u>\$(40,000)</u>	
Totals	<u>\$ 26,000</u>		<u>\$(40,000)*</u>	<u>\$50,400*</u>

\*Because of a flat tax rate, these totals can be reconciled:  
 $\$26,000 \times 40\% = \$(40,000) + \$50,400.$

**EXERCISE 19-18 (Continued)**

<b>(b) Pretax financial income for 2007</b>		<b>\$250,000</b>
Excess gross profit per books		(96,000)
Excess depreciation per tax return		(30,000)
Excess rental income per tax return		<u>100,000</u>
<b>Taxable income</b>		<b>\$224,000</b>
<b>(c) Income Tax Expense.....</b>	<b>111,200</b>	
Deferred Tax Asset.....	40,000	
<b>Income Tax Payable .....</b>		<b>100,800</b>
<b>Deferred Tax Liability.....</b>		<b>50,400</b>
<b>Taxable income</b>		<b>\$224,000</b>
<b>Tax rate</b>		<u>45%</u>
<b>Income tax payable</b>		<b><u>\$100,800</u></b>
<b>Deferred tax liability at the end of 2007</b>		<b>\$50,400</b>
<b>Deferred tax liability at the beginning of 2007</b>		<u>0</u>
<b>Deferred tax expense for 2007 (net increase required in deferred tax liability)</b>		<b><u>\$50,400</u></b>
<b>Deferred tax asset at the end of 2007</b>		<b>\$ 40,000</b>
<b>Deferred tax asset at the beginning of 2007</b>		<u>0</u>
<b>Deferred tax benefit for 2007 (net increase required in deferred tax asset)</b>		<b><u>\$(40,000)</u></b>
<b>Deferred tax expense for 2007</b>		<b>\$ 50,400</b>
<b>Deferred tax benefit for 2007</b>		<u>(40,000)</u>
<b>Net deferred tax expense for 2007</b>		<b>10,400</b>
<b>Current tax expense for 2007 (Income tax payable)</b>		<u>100,800</u>
<b>Income tax expense for 2007</b>		<b><u>\$111,200</u></b>

## EXERCISE 19-19 (25–30 minutes)

(a) (All figures are in millions.)

Temporary Difference	Rate	Resulting Deferred Tax		Related Balance Sheet Account	Classification
		(Asset)	Liability		
\$100 million estimated costs per books	40%	\$ (40)		Estimated Payable	Current
\$50 million excess depreciation per tax	40%		\$20	Plant Assets	Noncurrent
<b>Totals</b>		<u>\$ (40)</u>	<u>\$20</u>		

(b) Current assets

Deferred tax asset \$40,000,000

Long-term liabilities

Deferred tax liability \$20,000,000

(c) Income before income taxes \$85,000,000<sup>2</sup>

Income tax expense

Current \$64,000,000<sup>1</sup>

Deferred (30,000,000)<sup>3</sup> 34,000,000<sup>4</sup>

Net income \$51,000,000

<sup>1</sup>Taxable income for 2007 \$160,000,000

Enacted tax rate 40%

Income tax payable for 2007 \$ 64,000,000

<sup>2</sup>\$10,000,000 ÷ 40% = \$25,000,000 cumulative taxable temporary difference at the beginning of 2007.

Cumulative taxable temporary difference at the end of 2007 \$50,000,000

Cumulative taxable temporary difference at the beginning of 2007 25,000,000

Taxable temporary difference originating during 2007 \$25,000,000

Cumulative deductible temporary difference at the end of 2007 \$100,000,000

Cumulative deductible temporary difference at the beginning of 2007 0

Deductible temporary difference originating during 2007 \$100,000,000

**EXERCISE 19-19 (Continued)**

Pretax financial income for 2007	\$ X
Taxable temporary difference originating	(25,000,000)
Deductible temporary difference originating	<u>100,000,000</u>
Taxable income for 2007	<u>\$160,000,000</u>

Solving for X:

$$X - \$25,000,000 + \$100,000,000 = \$160,000,000$$

$$X = \underline{\$85,000,000} = \text{Pretax financial income}$$

<sup>3</sup> Deferred tax liability at the end of 2007	\$20,000,000
Deferred tax liability at the beginning of 2007	<u>10,000,000</u>
Deferred tax expense for 2007 (increase in deferred tax liability)	<u>\$10,000,000</u>
Deferred tax asset at the end of 2007	\$ 40,000,000
Deferred tax asset at the beginning of 2007	<u>0</u>
Deferred tax benefit for 2007 (increase in deferred tax asset)	(40,000,000)
Deferred tax expense for 2007	<u>10,000,000</u>
Net deferred tax benefit for 2007	<u>\$(30,000,000)</u>
<sup>4</sup> Net deferred tax benefit for 2007	\$(30,000,000)
Current tax expense for 2007 (Income tax payable)	<u>64,000,000</u>
Income tax expense for 2007	<u>\$ 34,000,000</u>

**EXERCISE 19-20 (15–20 minutes)**

(a) Income Tax Expense.....	128,800	
Deferred Tax Asset.....	68,000	
Income Tax Payable .....		176,800
Deferred Tax Liability.....		20,000

	Future Years			Total
	2007	2008	2009	
Future taxable (deductible) amounts				
Depreciation	\$ 20,000	\$30,000	\$10,000	\$ 60,000
Warranty costs	(200,000)			<u>\$(200,000)</u>
Enacted tax rate	<u>34%</u>	<u>34%</u>	<u>30%</u>	
Deferred tax liability	<u>\$ 6,800</u>	<u>\$10,200</u>	<u>\$ 3,000</u>	<u>\$ 20,000</u>
Deferred tax (asset)	<u>\$(68,000)</u>			<u>\$ (68,000)</u>

## EXERCISE 19-20 (Continued)

Taxable income for 2006	\$520,000
Tax rate	<u>34%</u>
Income tax payable for 2006	<u>\$176,800</u>
Deferred tax liability at the end of 2006	\$ 20,000
Deferred tax liability at the beginning of 2006	<u>0</u>
Deferred tax expense for 2006 (increase required in deferred tax liability account)	<u>\$ 20,000</u>
Deferred tax asset at the end of 2006	\$ 68,000
Deferred tax asset at the beginning of 2006	<u>0</u>
Deferred tax benefit for 2006 (increase in deferred tax asset)	<u>\$(68,000)</u>
Deferred tax benefit for 2006	\$ (68,000)
Deferred tax expense for 2006	<u>20,000</u>
Net deferred tax benefit for 2006	(48,000)
Current tax expense for 2006	<u>176,800</u>
Income tax expense for 2006	<u>\$128,800</u>
 (b) <u>Current assets</u>	
Deferred tax asset	\$68,000
 <u>Long-term liabilities</u>	
Deferred tax liability	\$20,000

The deferred tax asset is classified as current because the related warranty obligation is a current liability. The warranty obligation is classified as current because it is expected to be settled in the year that immediately follows the balance sheet date.

The deferred tax liability is classified as noncurrent because the related plant assets are in a noncurrent classification.

**EXERCISE 19-21 (20–25 minutes)**

(a) <b>Income Tax Expense</b> .....	<b>242,880</b>	
<b>Deferred Tax Asset</b> .....	<b>12,920</b>	
<b>Income Tax Payable</b> .....		<b>170,000</b>
<b>Deferred Tax Liability</b> .....		<b>85,800</b>

<b>Taxable income</b>	<b>\$500,000</b>
<b>Enacted tax rate</b>	<b>34%</b>
<b>Income tax payable</b>	<b><u>\$170,000</u></b>

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax		Classification
			(Asset)	Liability	
Installment sale	\$ 40,000	34% <sup>1</sup>		\$13,600	Current
Installment sale	190,000*	38% <sup>2</sup>		72,200	Current
Loss accrual	<u>(34,000)**</u>	38%	<u>\$(12,920)</u>		Noncurrent
<b>Totals</b>	<b><u>\$196,000</u></b>		<b><u>\$(12,920)</u></b>	<b><u>\$85,800</u></b>	

\*\$50,000 + \$60,000 + \$80,000 = \$190,000.

\*\*\$15,000 + \$19,000 = \$34,000.

<sup>1</sup>Tax rate for 2007.

<sup>2</sup>Tax rate for 2008–2011.

<b>Deferred tax liability at the end of 2007</b>	<b>\$85,800</b>
<b>Deferred tax liability at the beginning of 2007</b>	<b><u>0</u></b>
<b>Deferred tax expense for 2007 (increase required in deferred tax liability)</b>	<b><u>\$85,800</u></b>
<b>Deferred tax asset at the end of 2007</b>	<b>\$ 12,920</b>
<b>Deferred tax asset at the beginning of 2007</b>	<b><u>0</u></b>
<b>Deferred tax benefit for 2007 (increase required in deferred tax asset)</b>	<b><u>\$(12,920)</u></b>
<b>Deferred tax expense for 2007</b>	<b>\$ 85,800</b>
<b>Deferred tax benefit for 2007</b>	<b><u>(12,920)</u></b>
<b>Net deferred tax expense for 2007</b>	<b>72,880</b>
<b>Current tax expense for 2007 (Income tax payable)</b>	<b><u>170,000</u></b>
<b>Income tax expense for 2007</b>	<b><u>\$242,880</u></b>

(b) <b>Other assets (noncurrent)</b>	
<b>Deferred tax asset</b>	<b>\$12,920</b>
<b>Current liabilities</b>	
<b>Deferred tax liability</b>	<b>\$85,800</b>

## EXERCISE 19-21 (Continued)

The deferred tax asset is noncurrent because the related liability is noncurrent. The liability from the accrual of the loss contingency is noncurrent because it is expected to be settled in years later than the year immediately following the balance sheet date.

An alternative is to argue that the loss contingency should be classified as current because the operating cycle is 4 years. In that case, the deferred tax asset related to the loss contingency would be reported as current.

The deferred tax liability is current because it is assumed that the related installment receivable is classified as a current asset. The installment receivable is classified as current when it is a trade practice for the entity to sell on an installment basis. If you assume the installment receivable is related to an installment sale of an investment and, therefore, is classified as part current and part noncurrent, then \$13,600 (\$40,000 X 34%) of the deferred tax liability should be classified as current and \$72,200 (\$190,000 X 38%) of it should be classified as noncurrent.

## EXERCISE 19-22 (15–20 minutes)

(a) Income Tax Expense .....	125,800	
Deferred Tax Asset .....	10,200	
Income Tax Payable.....		119,000
Deferred Tax Liability .....		17,000
Taxable income		\$350,000
Enacted tax rate		34%
Income tax payable		<u>\$119,000</u>

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
Accounts receivable	\$50,000	34%		\$17,000
Litigation liability	(30,000)	34%	\$(10,200)	
Totals	<u>\$20,000</u>		<u>\$(10,200)</u>	<u>\$17,000</u>

\*Because of a flat tax rate for all periods, these totals can be reconciled as follows: \$20,000 X 34% = \$(10,200) + \$17,000.

**EXERCISE 19-22 (Continued)**

Deferred tax liability at the end of 2006	\$17,000
Deferred tax liability at the beginning of 2006	<u>0</u>
Deferred tax expense for 2006 (increase required in deferred tax liability)	<u>\$17,000</u>
Deferred tax asset at the end of 2006	\$ 10,200
Deferred tax asset at the beginning of 2006	<u>0</u>
Deferred tax benefit for 2006 (increase required in deferred tax asset)	<u>\$(10,200)</u>
Deferred tax expense for 2006	\$ 17,000
Deferred tax benefit for 2006	<u>(10,200)</u>
Net deferred tax expense for 2006	6,800
Current tax expense for 2006 (Income tax payable)	<u>119,000</u>
Income tax expense for 2006	<u>\$125,800</u>

(b)

Temporary Difference	Resulting Deferred Tax (Asset)      Liability	Related Balance Sheet Account	Classification
Accounts receivable	\$17,000	Accounts Receivable	Current
Litigation liability	<u>\$(10,200)</u>	Lawsuit Obligation	Current
Totals	<u>\$(10,200)</u> <u>\$17,000</u>		

The deferred tax asset is current because the related liability is current. The liability from the accrual of the litigation loss is current because it is expected to be settled in the year that immediately follows the balance sheet date.

The deferred tax liability is current because the related accounts receivable is classified as a current asset. The entire accounts receivable balance is classified as current because the operating cycle of the business is two years.

**EXERCISE 19-23 (30–35 minutes)**

(a)

	2005	
Income Tax Expense.....	40,800	
Income Tax Payable (\$120,000 X 34%).....		40,800

**EXERCISE 19-23 (Continued)**

**2006**

Income Tax Expense .....	30,600	
Income Tax Payable (\$90,000 X 34%) .....		30,600

**2007**

Income Tax Refund Receivable .....	71,400	
Deferred Tax Asset .....	26,600	
Benefit Due to Loss Carryback.....		71,400*
Benefit Due to Loss Carryforward .....		26,600**

\*[34% X \$(120,000)] + [34% X \$(90,000)] = \$71,400

\*\*38% X (\$280,000 – \$120,000 – \$90,000) = \$26,600

**2008**

Income Tax Expense .....	83,600	
Income Tax Payable.....		57,000*
Deferred Tax Asset.....		26,600

\*[((\$220,000 – \$70,000) X 38%]

(b) Operating loss before income taxes		\$(280,000)
Income tax benefit		
Benefit due to loss carryback	\$71,400	
Benefit due to loss carryforward	<u>26,600</u>	<u>98,000</u>
Net loss		<u><u>\$(182,000)</u></u>

(c) **2007**

Income Tax Refund Receivable .....	71,400	
Deferred Tax Asset .....	26,600	
Benefit Due to Loss Carryback.....		71,400*
Benefit Due to Loss Carryforward .....		26,600**

\*[34% X \$(120,000)] + [34% X \$(90,000)] = \$71,400

\*\*38% X (\$280,000 – \$120,000 – \$90,000) = \$26,600

Benefit Due to Loss Carryforward .....	6,650	
Allowance to Reduce Deferred Tax Asset to Expected Realizable Value.....		6,650
(25% X \$26,600)		

**EXERCISE 19-23 (Continued)**

**2008**

Income Tax Expense.....	<b>83,600</b>	
Deferred Tax Asset.....		<b>26,600</b>
Income Tax Payable .....		<b>57,000</b>
[( $\$220,000 - \$70,000$ ) X 38%]		

Allowance to Reduce Deferred Tax Asset to Expected Realizable Value.....	<b>6,650</b>	
Benefit Due to Loss Carryforward.....		<b>6,650</b>

(d) Operating loss before income taxes		<b>\$(280,000)</b>
Income tax benefit		
Benefit due to loss carryback	<b>\$71,400</b>	
Benefit due to loss carryforward ( $\$26,600 - \$6,650$ )	<u><b>19,950</b></u>	<u><b>91,350</b></u>
Net loss		<u><b>\$(188,650)</b></u>

**Note:** Using the assumption in part (a), the income tax section of the 2008 income statement would appear as follows:

Income before income taxes		<b>\$220,000</b>
Income tax expense		
Current	<b>\$57,000</b>	
Deferred	<u><b>26,600</b></u>	<u><b>83,600</b></u>
Net income		<u><b>\$136,400</b></u>

**Note:** Using the assumption in part (c), the income tax section of the 2008 income statement would appear as follows:

Income before income taxes		<b>\$220,000</b>
Income tax expense		
Current	<b>\$57,000</b>	
Deferred	<b>26,600</b>	
Benefit due to loss carryforward	<u><b>(6,650)</b></u>	<u><b>76,950</b></u>
Net income		<u><b>\$143,050</b></u>

**EXERCISE 19-24 (30–35 minutes)**

<b>(a)</b>	<b>2005</b>		
	Income Tax Expense .....	48,000	
	Income Tax Payable (\$120,000 X 40%) .....		48,000
	<b>2006</b>		
	Income Tax Expense .....	36,000	
	Income Tax Payable (\$90,000 X 40%) .....		36,000
	<b>2007</b>		
	Income Tax Refund Receivable .....	84,000	
	Deferred Tax Asset .....	31,500	
	Benefit Due to Loss Carryback.....		84,000*
	Benefit Due to Loss Carryforward .....		31,500**
	*[40% X \$(120,000)] + [40% X \$(90,000)] = \$84,000		
	**45% X (\$280,000 – \$120,000 – \$90,000) = \$31,500		
	Benefit Due to Loss Carryforward .....	15,750	
	Allowance to Reduce Deferred Tax Asset to Expected Realizable Value .....		15,750
	(50% X \$31,500)		
	<b>2008</b>		
	Income Tax Expense .....	54,000	
	Deferred Tax Asset .....		31,500
	Income Tax Payable .....		22,500
	[(120,000 – 70,000) X 45%]		
	Allowance to Reduce Deferred Tax Asset to Expected Realizable Value .....	15,750	
	Benefit Due to Loss Carryforward .....		15,750
<b>(b)</b>	Operating loss before income taxes		\$(280,000)
	Income tax benefit		
	Benefit due to loss carryback	\$84,000	
	Benefit due to loss carryforward (\$31,500 – \$15,750)	15,750	
	Net loss		<u><u>\$(180,250)</u></u>

**EXERCISE 19-24 (Continued)**

<b>(c) Income before income taxes</b>		<b>\$120,000</b>
Income tax expense		
Current	<b>\$22,500</b>	
Deferred	<b>31,500</b>	
Benefit due to loss carryforward	<b><u>(15,750)</u></b>	<b><u>38,250</u></b>
Net income		<b><u>\$ 81,750</u></b>

**EXERCISE 19-25 (15–20 minutes)**

<b>(a)</b>	<b>2007</b>		
	Income Tax Expense (\$120,000 X .40).....	<b>48,000</b>	
	Income Tax Payable .....		<b>48,000</b>
	<b>2008</b>		
	Income Tax Refund Receivable.....	<b>167,000</b>	
	Deferred Tax Asset.....	<b>40,000</b>	
	Benefit Due to Loss Carryback .....		<b>167,000*</b>
	Benefit Due to Loss Carryforward.....		<b>40,000**</b>
	*(\$350,000 X .34) + (\$120,000 X .40)		
	**[( \$570,000 – \$350,000 – \$120,000) X .40]		
	Benefit Due to Loss Carryforward.....	<b>8,000</b>	
	Allowance to Reduce Deferred Tax Asset to Expected Realizable Value .....		<b>8,000</b>
	(1/5 X \$40,000)		
	<b>2009</b>		
	Income Tax Expense (\$180,000 X .40).....	<b>72,000</b>	
	Income Tax Payable .....		<b>32,000</b>
	[( \$180,000 – \$100,000) X .40]		
	Deferred Tax Asset.....		<b>40,000</b>
	Allowance to Reduce Deferred Tax Asset to Expected Realizable Value .....	<b>8,000</b>	
	Benefit Due to Loss Carryforward.....		<b>8,000</b>

**EXERCISE 19-25 (Continued)**

<b>(b) Loss before income taxes</b>			<b>\$(570,000)</b>
<b>Income tax benefit</b>			
<b>Benefit due to loss carryback</b>	<b>\$167,000</b>		
<b>Benefit due to loss carryforward (\$40,000 – \$8,000)</b>	<b>32,000</b>	<b>199,000</b>	
<b>Net loss</b>			<b><u>\$(371,000)</u></b>

# TIME AND PURPOSE OF PROBLEMS

## **Problem 19-1** (Time 40–45 minutes)

Purpose—to provide the student with an understanding of how to compute and properly classify deferred income taxes when there are three types of temporary differences. A single tax rate applies. The student is required to compute and classify deferred income taxes. Also, the student must use data given to solve for both taxable income and pretax financial income. The latter computation is complicated by the fact there are deferred taxes at the beginning of the year.

## **Problem 19-2** (Time 50–60 minutes)

Purpose—to provide the student with a situation where: (1) a temporary difference originates over a three-year period and begins to reverse in the fourth period, (2) a change in an enacted tax rate occurs in a year in which there is a change in the amount of cumulative temporary difference, (3) the amount of originating or reversing temporary difference must be calculated each year in order to determine the cumulative temporary difference at the end of each year, and (4) there is a permanent difference along with a temporary difference each year. Journal entries are required for each of four years, including the entry for the adjustment of deferred taxes due to the change in the enacted tax rate.

## **Problem 19-3** (Time 40–45 minutes)

Purpose—to provide the student with an understanding of how future temporary differences for existing depreciable assets are considered in determining the future years in which existing temporary differences result in taxable or deductible amounts. The student is given information about pretax financial income, one temporary difference, and one permanent difference. The student must compute all amounts related to income taxes for the current year and prepare the journal entry to record them. In order to determine the beginning balance in a deferred tax account, the student must calculate deferred taxes for the prior year's balance sheet. An income statement presentation is also required and an extraordinary gain is recognized in the current period.

## **Problem 19-4** (Time 40–50 minutes)

Purpose—to provide the student with an understanding of permanent and temporary differences when there are multiple differences and a single rate.

## **Problem 19-5** (Time 20–25 minutes)

Purpose—to provide the student with a situation involving a net operating loss which can be partially offset by prior taxes paid using the carryback provision. Journal entries for the loss year and two subsequent years are required. The benefits of the loss carryforward are realized in the year following the loss year. Income statement presentations are required for the loss year where the benefits of the carryback and the carryforward are recognized and the year following the loss year where the benefits of the carryforward are realized.

## **Problem 19-6** (Time 20–25 minutes)

Purpose—to provide the student with an understanding of how the computation and classification of deferred income taxes are affected by the individual future year(s) in which future taxable and deductible amounts are scheduled to occur because of existing temporary differences. Two situations are given and the student is required to compute and classify the deferred income taxes for each. A net deferred tax asset results in both cases.

## **Problem 19-7** (Time 45–50 minutes)

Purpose—to provide the student with a situation where: (1) a temporary difference originates in one period and reverses over the following two periods, (2) a change in an enacted tax rate occurs in a year in which there is a change in the amount of cumulative temporary difference, and (3) the amount of originating or reversing temporary difference must be calculated each year in order to determine the cumulative temporary difference at the end of each year. Journal entries are required for each of three years, including the entry for the adjustment of deferred taxes due to the change in the enacted tax rate.

## **Time and Purpose of Problems (Continued)**

### **Problem 19-8** (Time 40–50 minutes)

Purpose—to test a student’s understanding of the relationships that exist in the subject area of accounting for income taxes. The student is required to compute and classify deferred income taxes for two successive years. The journal entry to record income taxes is also required for each year. A draft of the income tax expense section of the income statement is also required for each year. An interesting twist to this problem is that the student must compute taxable income for two individual periods based on facts about the tax rate and amount of taxes paid for each period and then combine that information with data on temporary differences to compute pretax financial income.

### **Problem 19-9** (Time 40–50 minutes)

Purpose—to test a student’s ability to compute and classify deferred taxes for three temporary differences and to draft the income tax expense section of the income statement for the year.

# SOLUTIONS TO PROBLEMS

<b>PROBLEM 19-1</b>
---------------------

- (a)  $X(.40) = \$360,000$  taxes due for 2006  
 $X = \$360,000 \div .40$   
 $X = \$900,000$  taxable income for 2006

(b)	Taxable income [from part (a)]	\$900,000
	Excess depreciation	100,000
	Municipal interest	10,000
	Unearned rent	<u>(40,000)</u>
	Pretax financial income for 2006	<u>\$970,000</u>

(c)	2006		
	Income Tax Expense.....	381,000	
	Deferred Tax Asset (\$40,000 X .35) .....	14,000	
	Income Tax Payable (\$900,000 X .40) .....		360,000
	Deferred Tax Liability (\$100,000 X .35).....		35,000

	2007		
	Income Tax Expense.....	341,250	
	Deferred Tax Liability .....	8,750	
	[\$100,000 ÷ 4) X .35]		
	Income Tax Payable .....		343,000
	(\$980,000 X .35)		
	Deferred Tax Asset.....		7,000
	[\$40,000 ÷ 2) X .35]		

(d)	Income before income taxes	\$970,000
	Income tax expense	
	Current	\$360,000
	Deferred (\$35,000 – \$14,000)	<u>21,000</u>
	Net income	<u>\$589,000</u>

<b>PROBLEM 19-2</b>
---------------------

- (a) Before deferred taxes can be computed, the amount of temporary difference originating (reversing) each period and the resulting cumulative temporary difference at each year-end must be computed:

	2007	2008	2009	2010
Pretax financial income	\$280,000	\$320,000	\$350,000	\$ 420,000
Nondeductible expense	30,000	30,000	30,000	30,000
Subtotal	310,000	350,000	380,000	450,000
Taxable income	180,000	225,000	270,000	580,000
Temporary difference originating (reversing)	\$130,000	\$125,000	\$110,000	\$(130,000)

	Cumulative Temporary Difference At End of Year	
2007	\$130,000	
2008	\$255,000	(\$130,000 + \$125,000)
2009	\$365,000	(\$255,000 + \$110,000)
2010	\$235,000	(\$365,000 – \$130,000)

Because the temporary difference causes pretax financial income to exceed taxable income in the period it originates, the temporary difference will cause future taxable amounts.

Taxable income for 2007	\$180,000
Enacted tax rate for 2007	35%
Current tax expense for 2007 (Income tax payable)	\$ 63,000

2007

Income Tax Expense .....	108,500	
Income Tax Payable.....		63,000
Deferred Tax Liability .....		45,500

**PROBLEM 19-2 (Continued)**

The deferred taxes at the end of 2007 would be computed as follows:

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
Depreciation	\$130,000	35%		<u>\$45,500</u>
Deferred tax liability at the end of 2007				\$45,500
Deferred tax liability at the beginning of 2007				<u>0</u>
Deferred tax expense for 2007 (increase in deferred tax liability)				<u>\$45,500</u>
Deferred tax expense for 2007				\$ 45,500
Current tax expense for 2007				<u>63,000</u>
Income tax expense for 2007				<u>\$108,500</u>

2008

Income Tax Expense.....	6,500*	
Deferred Tax Liability.....		6,500
(To record the adjustment for the increase in the enacted tax rate)		
Income Tax Expense.....	140,000	
Income Tax Payable .....		90,000
Deferred Tax Liability.....		50,000
(To record income taxes for 2008)		

\*The adjustment due to the change in the tax rate is computed as follows:

Cumulative temporary difference at the end of 2007	\$130,000
Newly enacted tax rate for future years	<u>40%</u>
Adjusted balance of deferred tax liability at the end of 2007	52,000
Current balance of deferred tax liability	<u>45,500</u>
Adjustment due to increase in enacted tax rate	<u>\$ 6,500</u>

**PROBLEM 19-2 (Continued)**

Taxable income for 2008	\$225,000
Enacted tax rate	<u>40%</u>
Current tax expense for 2008 (Income tax payable)	<u>\$ 90,000</u>

The deferred taxes at December 31, 2008, are computed as follows:

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	<u>Deferred Tax</u> (Asset)    Liability
Depreciation	\$255,000	40%	<u>\$102,000</u>
Deferred tax liability at the end of 2008			\$102,000
Deferred tax liability at the beginning of 2008 after adjustment			<u>52,000</u>
Deferred tax expense for 2008 exclusive of adjustment due to change in tax rate (increase in deferred tax liability)			<u>\$ 50,000</u>
Deferred tax expense for 2008			\$ 50,000
Current tax expense for 2008			<u>90,000</u>
Income tax expense (total) for 2008, exclusive of adjustment due to change in tax rate			<u>\$140,000</u>

2009

Income Tax Expense .....	152,000	
Income Tax Payable.....		108,000
Deferred Tax Liability .....		44,000

Taxable income for 2009	\$270,000
Enacted tax rate	<u>40%</u>
Current tax expense for 2009 (Income tax payable)	<u>\$108,000</u>

The deferred taxes at December 31, 2009, are computed as follows:

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	<u>Deferred Tax</u> (Asset)    Liability
Depreciation	\$365,000	40%	<u>\$146,000</u>

**PROBLEM 19-2 (Continued)**

Deferred tax liability at the end of 2009	\$146,000
Deferred tax liability at the beginning of 2009	<u>102,000</u>
Deferred tax expense for 2009 (increase in deferred tax liability)	<u>\$ 44,000</u>
Deferred tax expense for 2009	\$ 44,000
Current tax expense for 2009	<u>108,000</u>
Income tax expense for 2009	<u>\$152,000</u>

2010

Income Tax Expense.....	180,000	
Deferred Tax Liability .....	52,000	
Income Tax Payable .....		232,000
Taxable income for 2010		\$580,000
Enacted tax rate		<u>40%</u>
Current tax expense for 2010 (Income tax payable)		<u>\$232,000</u>

The deferred taxes at December 31, 2010, are computed as follows:

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
Depreciation	\$235,000	40%		<u>\$94,000</u>
Deferred tax liability at the end of 2010				\$ 94,000
Deferred tax liability at the beginning of 2010				<u>146,000</u>
Deferred tax benefit for 2010 (decrease in deferred tax liability)				<u>\$(52,000)</u>
Deferred tax benefit for 2010				\$(52,000)
Current tax expense for 2010				<u>232,000</u>
Income tax expense for 2010				<u>\$180,000</u>

(b)

2008

Income before income taxes		\$320,000
Income tax expense		
Current	\$90,000	
Deferred	50,000	
Adjustment due to change in tax rate	<u>6,500</u>	<u>146,500</u>
Net income		<u>\$173,500</u>

**PROBLEM 19-3**

	<b>Book Depreciation</b>	<b>Tax Depreciation</b>	<b>Difference</b>
2006	\$ 125,000	\$ 100,000*	\$ 25,000
2007	125,000	200,000	(75,000)
2008	125,000	200,000	(75,000)
2009	125,000	200,000	(75,000)
2010	125,000	200,000	(75,000)
2011	125,000	100,000*	25,000
2012	125,000	0	125,000
2013	125,000	0	125,000
<b>Totals</b>	<u><b>\$1,000,000</b></u>	<u><b>\$1,000,000</b></u>	<u><b>\$ 0</b></u>

\*( $\$1,000,000 \div 5$ ) X .5

<b>(a)</b>	<b>Pretax financial income for 2007</b>	<b>\$1,400,000</b>
	Nontaxable interest	(60,000)
	Excess depreciation (\$200,000 – \$125,000)	<u>(75,000)</u>
	<b>Taxable income for 2007</b>	<b>1,265,000</b>
	Tax rate	<u>35%</u>
	<b>Income tax payable for 2007</b>	<b><u>\$ 442,750</u></b>
<b>(b)</b>	<b>Income Tax Expense .....</b>	<b>469,000</b>
	Income Tax Payable.....	442,750
	Deferred Tax Liability .....	17,500
	Deferred Tax Asset.....	8,750

**PROBLEM 19-3 (Continued)**

**Scheduling—End of 2007**

	Future Years			Total
	2008	2009	2010	
Future taxable (deductible) amounts	<u>\$(75,000)</u>	<u>\$(75,000)</u>	<u>\$(75,000)</u>	
Enacted tax rate	<u>35%</u>	<u>35%</u>	<u>35%</u>	
Deferred tax (asset) liability	<u>\$(26,250)</u>	<u>\$(26,250)</u>	<u>\$(26,250)</u>	
	Future Years			
	2011	2012	2013	Total
Future taxable (deductible) amounts	\$25,000	\$125,000	\$125,000	<u>\$(50,000)</u>
Enacted tax rate	<u>35%</u>	<u>35%</u>	<u>35%</u>	
Deferred tax (asset) liability	<u>\$ 8,750</u>	<u>\$ 43,750</u>	<u>\$ 43,750</u>	<u>\$(17,500)</u>

The net deferred tax asset at December 31, 2007, is \$17,500.

**Scheduling-End of 2006**

	Future Years			
	2007	2008	2009	2010
Future taxable (deductible) amounts	<u>\$(75,000)</u>	<u>\$(75,000)</u>	<u>\$(75,000)</u>	<u>\$(75,000)</u>
Enacted tax rate	<u>35%</u>	<u>35%</u>	<u>35%</u>	<u>35%</u>
Deferred tax (asset) liability	<u>\$(26,250)</u>	<u>\$(26,250)</u>	<u>\$(26,250)</u>	<u>\$(26,250)</u>
	Future Years			
	2011	2012	2013	Total
Future taxable (deductible) amounts	\$25,000	\$125,000	\$125,000	<u>\$(25,000)</u>
Enacted tax rate	<u>35%</u>	<u>35%</u>	<u>35%</u>	
Deferred tax (asset) liability	<u>\$ 8,750</u>	<u>\$ 43,750</u>	<u>\$ 43,750</u>	<u>\$(8,750)</u>

**PROBLEM 19-3 (Continued)**

The net deferred tax asset at December 31, 2006, is \$8,750.

Deferred tax liability at the end of 2007		\$17,500
Deferred tax liability at the beginning of 2007		<u>0</u>
Deferred tax expense for 2007 (increase in deferred tax liability)		<u>\$17,500</u>
Deferred tax asset at the end of 2007		\$ 0
Deferred tax asset at the beginning of 2007		<u>8,750</u>
Deferred tax expense for 2007 (decrease in deferred tax asset)		<u>\$ 8,750</u>
Deferred tax expense for 2007 (from deferred tax liability)		\$17,500
Deferred tax expense for 2007 (from deferred tax asset)		<u>8,750</u>
Net deferred tax expense for 2007		<u>\$26,250</u>
Current tax expense for 2007 (Income tax payable)		\$442,750
Deferred tax expense for 2007		<u>26,250</u>
Income tax expense for 2007		<u>\$469,000</u>
(c) Income before income taxes and extraordinary item		\$1,200,000 <sup>a</sup>
Income tax expense		
Current (\$442,750 – \$70,000 <sup>b</sup> )	\$372,750	
Deferred	<u>26,250</u>	<u>399,000</u>
Income before extraordinary item		801,000
Extraordinary gain	200,000	
Less applicable income tax	<u>70,000</u>	<u>130,000</u>
Net income		<u>\$ 931,000</u>

<sup>a</sup>\$1,400,000 pretax financial income – \$200,000 extraordinary item = \$1,200,000.

<sup>b</sup>(\$200,000 X 35%)

(d) \$(78,750) + \$96,250 = \$17,500 net deferred tax liability at December 31, 2007.

Long-term liabilities

Deferred tax liability \$17,500

<b>PROBLEM 19-4</b>
---------------------

(a) **Schedule of Pretax Financial Income  
and Taxable Income for 2007**

<b>Pretax financial income</b>	<b>\$850,000</b>
<b>Permanent differences</b>	
Insurance expense	9,000
Bond interest revenue	(4,000)
Pollution fines	<u>4,200</u>
	<b>859,200</b>
<b>Temporary differences</b>	
Depreciation expense	(20,000)*
Installment sales (\$100,000 – \$75,000)	(25,000)
Warranty expense (\$60,000 – \$10,000)	<u>50,000</u>
<b>Taxable income</b>	<b><u>\$864,200</u></b>

* Depreciation for books (\$200,000/5)	=	\$40,000
Depreciation tax return (\$200,000 X 30%)	=	<u>60,000</u>
Difference		<u>\$20,000</u>

The income tax payable for 2007 is as follows:

Taxable income.....	\$864,200
Tax rate.....	<u>30%</u>
Income tax payable.....	<b><u>\$259,260</u></b>

The computation of the deferred income taxes for 2007 is as follows:

<b>Temporary differences</b>	
Depreciation expense	\$(20,000) X 30% = \$(6,000) DTL
Installment sales (\$100,000 – \$75,000)	(25,000) X 30% = (7,500) DTL
Warranty expense (\$60,000 – \$10,000)	50,000 X 30% = 15,000 DTA

**PROBLEM 19-4 (Continued)**

- (b) The journal entry to record income tax payable, income tax expense and deferred income taxes is as follows:

<b>Income Tax Expense .....</b>	<b>257,760*</b>	
<b>Deferred Tax Asset.....</b>	<b>15,000</b>	
<b>    Deferred Tax Liability (\$6,000 + \$7,500).. Income Tax Payable .....</b>		<b>13,500 259,260</b>

<b>*Deferred tax expense for 2007     (from deferred tax liability) (\$6,000 + \$7,500)</b>	<b>\$ 13,500</b>	
<b>Deferred tax benefit for 2007     (from deferred tax asset)</b>	<b><u>(15,000)</u></b>	
<b>Net deferred tax benefit for 2007</b>	<b>(1,500)</b>	
<b>Current tax expense for 2007     (income tax payable)</b>	<b><u>259,260</u></b>	
<b>Income tax expense for 2007</b>	<b><u>\$257,760</u></b>	

**PROBLEM 19-5**

<b>(a)</b>			
	<u><b>2006</b></u>		
	<b>Income Tax Refund Receivable.....</b>	<b>50,000</b>	
	<b>[((\$60,000 X 30%) + (\$80,000 X 40%)]</b>		
	<b>Benefit Due to Loss Carryback .....</b>		<b>50,000</b>
	<b>Deferred Tax Asset.....</b>	<b>24,000</b>	
	<b>Benefit Due to Loss Carryforward.....</b>		<b>24,000</b>
	<b>(\$200,000 – \$60,000 – \$80,000 = \$60,000)</b>		
	<b>(\$60,000 X 40% = \$24,000)</b>		
	<u><b>2007</b></u>		
	<b>Income Tax Expense.....</b>	<b>28,000</b>	
	<b>Deferred Tax Asset.....</b>		<b>24,000</b>
	<b>Income Tax Payable .....</b>		<b>4,000</b>
	<b>[((\$70,000 – \$60,000) X 40%]</b>		
	<u><b>2008</b></u>		
	<b>Income Tax Expense.....</b>	<b>31,500</b>	
	<b>Income Tax Payable (\$90,000 X 35%).....</b>		<b>31,500</b>

**(b) The income tax refund receivable account totaling \$50,000 will be reported under current assets on the balance sheet at December 31, 2006. This type of receivable is usually listed immediately above inventory in the current assets section. This receivable is normally collectible within two months of filing the amended tax returns reflecting the carryback. A deferred tax asset of \$24,000 should also be classified as a current asset because the benefits of the loss carryforward are expected to be realized in the year that immediately follows the loss year which means the benefits are expected to be realized in 2007. A current deferred tax asset is usually listed at or near the end of the list of current assets on the balance sheet. Also, retained earnings is increased by \$74,000 (\$50,000 + \$24,000) as a result of the entries to record the benefits of the loss carryback and the loss carryforward.**

**PROBLEM 19-5 (Continued)**

**(c) 2006 Income Statement**

Operating loss before income taxes		<b>\$(200,000)</b>
Income tax benefit		
Benefit due to loss carryback	<b>\$50,000</b>	
Benefit due to loss carryforward	<b><u>24,000</u></b>	<b><u>74,000</u></b>
Net loss		<b><u>\$(126,000)</u></b>

**(d) 2007 Income Statement**

Income before income taxes		<b>\$70,000</b>
Income tax expense		
Current	<b>\$ 4,000<sup>a</sup></b>	
Deferred	<b><u>24,000</u></b>	<b><u>28,000</u></b>
Net income		<b><u>\$42,000</u></b>

<sup>a</sup> Loss (2006)		<b>\$200,000</b>
Loss carryback (2004)		<b>(60,000)</b>
Loss carryback (2005)		<b><u>(80,000)</u></b>
Loss carryforward (2007)		<b>(60,000)</b>
Taxable income 2007 before carryforward		<b><u>70,000</u></b>
Taxable income 2007		<b>10,000</b>
Enacted tax rate for 2007		<b><u>40%</u></b>
Income tax payable for 2007		<b><u>\$ 4,000</u></b>

**PROBLEM 19-6**

1.

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
2007	\$ 300	30% <sup>a</sup>		\$ 90
2008	300	30% <sup>b</sup>		90
2009	300	30% <sup>c</sup>		90
2010	300	35% <sup>d</sup>		105
2010	(1,400)	35% <sup>d</sup>	\$(490)	
2011	<u>300</u>	35% <sup>e</sup>		<u>105</u>
<b>Totals</b>	<b><u>\$ 100</u></b>		<b><u>\$(490)</u></b>	<b><u>\$480</u></b>

<sup>a</sup>Tax rate for 2007.

<sup>b</sup>Tax rate for 2008.

<sup>c</sup>Tax rate for 2009.

<sup>d</sup>Tax rate for 2010

<sup>e</sup>Tax rate for 2011.

**PIRATES CO.  
Balance Sheet  
December 31, 2006**

**Other assets (noncurrent)**

Deferred tax asset (\$490 – \$480) \$10

2.

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
2007	\$ 300	30% <sup>a</sup>		\$ 90
2008	300	30% <sup>b</sup>		90
2009	300	30% <sup>c</sup>		90
2009	(2,000)	30% <sup>c</sup>	\$(600)	
2010	<u>300</u>	35% <sup>d</sup>		<u>105</u>
<b>Totals</b>	<b><u>\$ (800)</u></b>		<b><u>\$(600)</u></b>	<b><u>\$375</u></b>

<sup>a</sup>Tax rate for 2007.

<sup>b</sup>Tax rate for 2008.

<sup>c</sup>Tax rate for 2009

<sup>d</sup>Tax rate for 2010.

**PROBLEM 19-6 (Continued)**

**EAGLES CO.  
Balance Sheet  
December 31, 2006**

---

**Other assets (noncurrent)**

<b>Deferred tax asset (\$600 – \$375)</b>	<b>\$225</b>
---	--------------

**PROBLEM 19-7**

- (a) Before deferred taxes can be computed, the amount of cumulative temporary difference existing at the end of each year must be computed:

	2006	2007	2008
Pretax financial income	\$130,000	\$70,000	\$70,000
Taxable income	90,000	90,000	90,000
Temporary difference originating (reversing)	40,000	(20,000)	(20,000)
Cumulative temporary difference at the beginning of the year	0	40,000	20,000
Cumulative temporary difference at the end of the year	\$ 40,000	\$20,000	\$ 0

2006

Income Tax Expense.....	45,500	
Income Tax Payable .....		31,500
Deferred Tax Liability.....		14,000

Taxable income for 2006		\$90,000
Enacted tax rate for 2006		35%
Current tax expense for 2006 (Income tax payable)		\$31,500

	Future Taxable (Deductible) Amounts	Tax Rate	December 31, 2006 Deferred Tax	
Temporary Difference			(Asset)	Liability
Installment Accounts Receivable	\$ 40,000	35% <sup>a</sup>		\$14,000

<sup>a</sup>Tax rate enacted for 2006.

Deferred tax liability at the end of 2006		\$14,000
Deferred tax liability at the beginning of 2006		0
Deferred tax expense for 2006 (increase in deferred tax liability)		\$14,000

**PROBLEM 19-7 (Continued)**

Deferred tax expense for 2006	\$14,000
Current tax expense for 2006 (Income tax payable)	<u>31,500</u>
Income tax expense for 2006	<u>\$45,500</u>

2007

Deferred Tax Liability .....	2,000	
Income Tax Expense .....		2,000*
(To record the adjustment for the decrease in the enacted tax rate)		

Income Tax Expense .....	21,000	
Deferred Tax Liability .....	6,000	
Income Tax Payable.....		27,000

*Cumulative temporary difference at the end of 2006	\$40,000
Newly enacted tax rate for future year	<u>30%</u>
Adjusted balance of deferred tax liability at the end of 2006	12,000
Current balance of deferred tax liability	<u>14,000</u>
Adjustment due to decrease in enacted tax rate	<u>\$ (2,000)</u>

Taxable income for 2007	\$90,000
Enacted tax rate for 2007	<u>30%</u>
Current tax expense for 2007 (Income tax payable)	<u>\$27,000</u>

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
<b>Installment Accounts Receivable</b>	\$20,000	30% <sup>b</sup>		<u>\$ 6,000</u>

<sup>b</sup>Tax rate enacted for 2007.

Deferred tax liability at the end of 2007	\$ 6,000
Deferred tax liability at the beginning of 2007 after adjustment (\$14,000 – \$2,000)	<u>12,000</u>
Deferred tax benefit for 2007 (decrease in deferred tax liability)	<u>\$ (6,000)</u>

**PROBLEM 19-7 (Continued)**

Deferred tax benefit for 2007	\$ (6,000)
Current tax expense for 2007 (Income tax payable)	<u>27,000</u>
Income tax expense for 2007	<u>\$21,000</u>

2008

Income Tax Expense.....	21,000	
Deferred Tax Liability .....	6,000	
Income Tax Payable .....		27,000

Taxable income for 2008	\$90,000
Enacted tax rate for 2008	<u>30%</u>
Current tax expense for 2008 (Income tax payable)	<u>\$27,000</u>

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	December 31, 2007 Deferred Tax	
			(Asset)	Liability
Installment Accounts Receivable	\$—0—	30%		<u>\$—0—</u>
Deferred tax liability at the end of 2008				\$ 0
Deferred tax liability at the beginning of 2008				<u>6,000</u>
Deferred tax benefit for 2008 (decrease in deferred tax liability)				<u>\$ (6,000)</u>
Deferred tax benefit for 2008				\$ (6,000)
Current tax expense for 2008				<u>27,000</u>
Income tax expense for 2008				<u>\$21,000</u>

(b) December 31, 2006

<u>Current liabilities</u>	
Deferred tax liability	\$14,000

December 31, 2007

<u>Current liabilities</u>	
Deferred tax liability	\$ 6,000

December 31, 2008

There is no deferred tax liability to be reported at this date.

**PROBLEM 19-7 (Continued)**

<b>(c)</b>	<b><u>2006</u></b>		
<b>Income before income taxes</b>			<b>\$130,000</b>
<b>Income tax expense</b>			
<b>Current</b>		<b>\$31,500</b>	
<b>Deferred</b>		<b><u>14,000</u></b>	<b><u>45,500</u></b>
<b>Net income</b>			<b><u>\$ 84,500</u></b>
	<b><u>2007</u></b>		
<b>Income before income taxes</b>			<b>\$70,000</b>
<b>Income tax expense</b>			
<b>Current</b>		<b>\$27,000</b>	
<b>Deferred</b>		<b>(6,000)</b>	
<b>Adjustment due to decrease     in tax rate</b>		<b><u>(2,000)</u></b>	<b><u>19,000</u></b>
<b>Net income</b>			<b><u>\$51,000</u></b>
	<b><u>2008</u></b>		
<b>Income before income taxes</b>			<b>\$70,000</b>
<b>Income tax expense</b>			
<b>Current</b>		<b>\$27,000</b>	
<b>Deferred</b>		<b><u>(6,000)</u></b>	<b><u>21,000</u></b>
<b>Net income</b>			<b><u>\$49,000</u></b>

**PROBLEM 19-8**

(a)

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax (Asset)    Liability
Depreciation	\$(40,000)*	40%	<u>\$(16,000)</u>

\*(Computation shown on next page.)

Other assets (noncurrent)

Deferred tax asset \$16,000

This answer may differ from what is expected. Usually, depreciation is faster for tax purposes; in this situation, there is excess depreciation for book purposes in the first year for depreciation (2006).

(b) Income Tax Expense.....	124,000	
Deferred Tax Asset.....	16,000	
Income Tax Payable .....		140,000

\$140,000 taxes due for 2006 ÷ 40% 2006 tax rate = \$350,000 taxable income for 2006.

Taxable income for 2006	\$350,000
Tax rate	<u>40%</u>
Income tax payable for 2006 (also given data)	<u>\$140,000</u>
Deferred tax asset at the end of 2006	\$ 16,000
Deferred tax asset at the beginning of 2006	<u>0</u>
Deferred tax benefit for 2006 (increase in deferred tax asset)	(16,000)
Current tax expense for 2006 (Income tax payable)	<u>140,000</u>
Income tax expense for 2006	<u>\$124,000</u>

(c) Income before income taxes		\$310,000 <sup>a</sup>
Income tax expense		
Current	\$140,000	
Deferred	<u>(16,000)</u>	<u>124,000</u>
Net income		<u>\$186,000</u>

<sup>a</sup> Pretax financial income	\$    X
Excess depreciation per books	<u>40,000<sup>b</sup></u>
Taxable income [from (b) above]	<u>\$350,000</u>

Solving for X; X + \$40,000 = \$350,000; X = \$310,000 pretax financial income.

**PROBLEM 19-8 (Continued)**

	<u>Book Depreciation</u>	<u>Tax Depreciation</u>	<sup>b</sup> <u>Difference</u>
2006	\$ 80,000	\$ 40,000*	\$40,000
2007	80,000	80,000	0
2008	80,000	80,000	0
2009	80,000	80,000	0
2010	80,000	80,000	0
2011	<u>0</u>	<u>40,000</u>	<u>(40,000)</u>
<b>Totals</b>	<b><u>\$400,000</u></b>	<b><u>\$400,000</u></b>	<b><u>\$ 0</u></b>

\*(\$400,000 ÷ 5) X .5

(d)

<u>Temporary Difference</u>	<u>Future Taxable (Deductible) Amounts</u>	<u>Tax Rate</u>	<u>Deferred Tax</u>	
			<u>(Asset)</u>	<u>Liability</u>
Depreciation	\$ (40,000)	40%	\$(16,000)	
Unearned rent	(75,000)	40%	(30,000)	
Unearned rent	<u>(75,000)</u>	40%	<u>(30,000)</u>	
<b>Totals</b>	<b><u>\$(190,000)</u></b>		<b><u>\$(76,000)</u></b>	

<u>Temporary Difference</u>	<u>Resulting Deferred Tax</u>		<u>Related Balance Sheet Account</u>	<u>Classification</u>
	<u>(Asset)</u>	<u>Liability</u>		
Depreciation	\$(16,000)		Plant Assets	Noncurrent
Unearned rent	(30,000)		Unearned Rent	Current
Unearned rent	<u>(30,000)</u>		Unearned Rent	Noncurrent
<b>Totals</b>	<b><u>\$(76,000)</u></b>			

**Current assets**

**Deferred tax asset** **\$30,000**

**Other assets (noncurrent)**

**Deferred tax asset** **\$46,000<sup>c</sup>**

<sup>c</sup>\$30,000 + \$16,000 = \$46,000

**PROBLEM 19-8 (Continued)**

(e) Income Tax Expense.....	52,000	
Deferred Tax Asset.....	60,000	
Income Tax Payable .....		112,000

\$112,000 taxes due for 2007 ÷ 40% 2007 tax rate = \$280,000 taxable income for 2007.

Taxable income for 2007	\$280,000
Tax rate for 2007	<u>40%</u>
Income tax payable for 2007 (also given data)	<u>\$112,000</u>

Deferred tax asset at the end of 2007	\$ 76,000
Deferred tax asset at the beginning of 2007	<u>16,000</u>
Deferred tax benefit for 2007 (increase in deferred tax asset)	<u>\$ (60,000)</u>

Deferred tax benefit for 2007	\$ (60,000)
Current tax expense for 2007 (Income tax payable)	<u>112,000</u>
Income tax expense for 2007	<u>\$ 52,000</u>

(f) Income before income taxes		\$130,000 <sup>d</sup>
Income tax expense		
Current	\$112,000	
Deferred	<u>(60,000)</u>	<u>52,000</u>
Net income		<u>\$ 78,000</u>

<sup>d</sup> Pretax financial income	\$ X
Excess rent collected over rent earned	<u>150,000</u>
Taxable income [from (e) above]	<u>\$280,000</u>

Solving for X:

$$X + \$150,000 = \$280,000$$

$$X = \$130,000 \text{ pretax financial income.}$$

**PROBLEM 19-9**

(a)	Pretax financial income	\$100,000
	Permanent differences:	
	Fine for pollution	3,500
	Tax-exempt interest	(1,400)
	Originating temporary differences:	
	Excess warranty expense per books (\$5,000 – \$2,000)	3,000
	Excess construction profits per books (\$92,000 – \$62,000)	(30,000)
	Excess depreciation per tax return (\$80,000 – \$60,000)	<u>(20,000)</u>
	Taxable income	<u>\$ 55,100</u>

(b)		Future Taxable	Tax	Deferred Tax	
	Temporary Difference	(Deductible) Amounts	Rate	(Asset)	Liability
	Warranty costs	\$ (3,000)	40%	\$(1,200)	
	Construction profits	30,000	40%		\$12,000
	Depreciation	<u>20,000</u>	40%		<u>8,000</u>
	Totals	<u>\$47,000</u>		<u>\$(1,200)</u>	<u>\$20,000*</u>

\*Because of a flat tax rate, these totals can be reconciled:  
 $\$47,000 \times 40\% = \$1,200 + \$20,000.$

(c)	Income Tax Expense .....	40,840
	Deferred Tax Asset .....	1,200
	Deferred Tax Liability .....	20,000
	Income Tax Payable.....	22,040
	Taxable income for 2007 [answer part (a)]	\$55,100
	Tax rate	<u>40%</u>
	Income tax payable for 2007	<u>\$22,040</u>
	Deferred tax liability at the end of 2007 [part (b)]	\$20,000
	Deferred tax liability at the beginning of 2007	<u>0</u>
	Deferred tax expense for 2007	<u>\$20,000</u>

**PROBLEM 19-9 (Continued)**

Deferred tax asset at the end of 2007			<b>\$ 1,200</b>
Deferred tax asset at the beginning of 2007			<u>0</u>
Deferred tax benefit for 2007			<b><u>\$ (1,200)</u></b>
Deferred tax expense for 2007			<b>\$20,000</b>
Deferred tax benefit for 2007			<u>(1,200)</u>
Net deferred tax expense for 2007			<b><u>\$18,800</u></b>
Current tax expense for 2007 (Income tax payable)			<b>\$22,040</b>
Deferred tax expense for 2007			<u>18,800</u>
Income tax expense for 2007			<b><u>\$40,840</u></b>
(d) Income before income taxes			<b>\$100,000</b>
Income tax expense			
Current		<b>\$22,040</b>	
Deferred		<u>18,800</u>	<u>40,840</u>
Net income			<b><u>\$ 59,160</u></b>

# TIME AND PURPOSE OF CONCEPTS FOR ANALYSIS

**CA 19-1** (Time 15–20 minutes)

Purpose—to have the student explain the objectives in accounting for income taxes in the financial statements and the basic principles that are applied in meeting the objectives. The student is also required to list the steps involved in the annual computation of deferred income taxes.

**CA 19-2** (Time 20–25 minutes)

Purpose—to provide the student an opportunity to discuss the principles of the asset-liability method, how the deferred tax effects of temporary differences are computed, and how the deferred tax consequences of temporary differences are classified on a balance sheet.

**CA 19-3** (Time 20–25 minutes)

Purpose—to develop an understanding of temporary and permanent differences. The student is required to explain the nature of four differences and to explain why each is a permanent or temporary difference. Two of the four situations are challenging. Also, the nature of and the classification of deferred tax accounts are examined.

**CA 19-4** (Time 20–25 minutes)

Purpose—to develop an understanding of deferred taxes and balance sheet disclosure. This case has two parts. In the first part, the student is required to indicate whether deferred income taxes should be recognized for each of four items. In the second part, the student must discuss the conditions under which deferred taxes will be classified as a noncurrent item in the balance sheet.

**CA 19-5** (Time 20–25 minutes)

Purpose—to develop an understanding of how to determine the appropriate tax rate to use in computing deferred taxes when different tax rates are enacted for various years affected by existing temporary differences.

**CA 19-6** (Time 20–25 minutes)

Purpose—to develop an understanding of the concept of future taxable amounts and future deductible amounts. Also, to develop an understanding of how the carryback and carryforward provisions affect the computation of deferred tax assets and liabilities when there are multiple tax rates enacted for the various periods affected by existing temporary differences.

**CA 19-7** (Time 20–25 minutes)

Purpose—to provide the student an opportunity to examine the income effects of deferred taxes, including ethical issues.

# SOLUTIONS TO CONCEPTS FOR ANALYSIS

## CA 19-1

- (a) The objectives in accounting for income taxes are:
1. To recognize the amount of taxes payable or refundable for the current year.
  2. To recognize deferred tax liabilities and assets for the future tax consequences of events that have been recognized in the financial statements or tax returns.
- (b) To implement the objectives, the following basic principles are applied in accounting for income taxes at the date of the financial statements:
1. A current tax liability or asset is recognized for the estimated taxes payable or refundable on the tax return for the current year.
  2. A deferred tax liability or asset is recognized for the estimated future tax effects attributable to temporary differences and loss carryforwards using the enacted marginal tax rate.
  3. The measurement of current and deferred tax liabilities and assets is based on provisions of the enacted tax law; the effects of future changes in tax laws or rates are not anticipated.
  4. The measurement of deferred tax assets is adjusted, if necessary, to not recognize tax benefits that, based on available evidence, are not expected to be realized.
- (c) The procedures for the annual computation of deferred income taxes are as follows:
1. Identify: (1) the types and amounts of existing temporary differences and (2) the nature and amount of each type of operating loss and tax credit carryforward and the remaining length of the carryforward period.
  2. Measure the total deferred tax liability for taxable temporary differences using the enacted tax rate.
  3. Measure the total deferred tax asset for deductible temporary differences and operating loss carryforwards using the enacted tax rate.
  4. Measure deferred tax assets for each type of tax credit carryforward.
  5. Reduce deferred tax assets by a valuation allowance if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. The valuation allowance should be sufficient to reduce the deferred tax asset to the amount that is more likely than not to be realized.

## CA 19-2

- (a) The following basic principles are applied in accounting for income taxes at the date of the financial statements:
1. A current tax liability or asset is recognized for the estimated taxes payable or refundable on the tax return for the current year.
  2. A deferred tax liability or asset is recognized for the estimated future tax effects attributable to temporary differences and loss carryforwards using the enacted marginal tax rate.
  3. The measurement of current and deferred tax liabilities and assets is based on provisions of the enacted tax law; the effects of future changes in tax laws or rates are not anticipated.
  4. The measurement of deferred tax assets is adjusted, if necessary, to not recognize tax benefits that, based on available evidence, are not expected to be realized.
- (b) Majoli should do the following in accounting for the temporary differences.
1. Identify the types and amounts of existing temporary differences. The depreciation policies give rise to a temporary difference that will result in net future taxable amounts (because depreciation for tax purposes exceeds the depreciation for financial statements). Rents are taxed in the year they are received but reported on the income statement in the year earned. The collection of rent revenue in advance will cause future deductible amounts.

## CA 19-2 (Continued)

2. Measure the total deferred tax liability for the taxable temporary difference using the enacted marginal tax rate.
  3. Measure the total deferred tax asset for the deductible temporary difference using the enacted marginal tax rate.
  4. Reduce the deferred tax asset by a valuation allowance, if based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax asset will not be realized.
- (c) Deferred tax accounts are reported on the balance sheet as assets and liabilities. They should be classified in a net current and a net noncurrent amount. An individual deferred tax liability or asset is classified as current or noncurrent based on the classification of the related asset or liability for financial reporting. A deferred tax asset or liability is considered to be related to an asset or liability if reduction of the asset or liability will cause the temporary difference to reverse or turn around. A deferred tax liability or asset that is not related to an asset or liability for financial reporting, including deferred tax assets related to loss carryforwards, shall be classified according to the expected reversal date of the temporary difference.

Majoli's deferred tax liability resulting from the depreciation difference should be reported as a long-term liability because a related asset (the asset being depreciated) is in a noncurrent classification.

Majoli's deferred tax asset resulting from the advance collection of rents should be reported as a current asset because the related obligation (Unearned Revenue) is classified as a current liability.

## CA 19-3

- (a)
1. Temporary difference. The full estimated three years of warranty costs reduce the current year's pretax financial income, but will reduce taxable income in varying amounts each respective year, as paid. Assuming the estimate as to each warranty is valid, the total amounts deducted for accounting and for tax purposes will be equal over the three-year period for a given warranty. This is an example of an expense that, in the first period, reduces pretax financial income more than taxable income and, in later years, reverses. This type of temporary difference will result in future deductible amounts which will give rise to the current recognition of a deferred tax asset. Another way to evaluate this situation is to compare the carrying value of the warranty liability with its tax basis (which is zero). When the liability is settled in a future year an expense will be recognized for tax purposes but none will be recognized for financial reporting purposes. Therefore, tax benefits for the tax deductions should result from the future settlement of the liability.
  2. Temporary difference. The difference between the tax basis and the reported amount (book basis) of the depreciable property will result in taxable or deductible amounts in future years when the reported amount of the asset is recovered (through use or sale of the asset); hence, it is a temporary difference.
  3. Temporary difference and permanent difference. The investor's share of earnings of an investee (other than subsidiaries and corporate joint ventures) accounted for by the equity method is included in pretax financial income while only 20% of dividends received from some domestic corporations are included in taxable income. Of the amount included in pretax financial income, 80% is a permanent difference attributable to the dividends-received deduction permitted when computing taxable income. Twenty percent of the amount included in pretax financial income is potentially a temporary difference which will reverse as dividends are received. If the investee distributes 10% of its earnings, then one-half of the potential temporary difference is eliminated and 10% of the amount included in pretax financial income is a temporary difference.

## CA 19-3 (Continued)

4. Temporary difference. For financial reporting purposes, any gain experienced in an involuntary conversion of a nonmonetary asset to a monetary asset must be recognized in the period of conversion. For tax purposes, this gain may be deferred if the total proceeds are reinvested in replacement property within a certain period of time. When such a gain is deferred, the tax basis of the replacement property is less than its carrying value and this difference will result in future taxable amounts. Hence, this is a temporary difference.

(b) Deferred tax accounts are reported on the balance sheet as assets and liabilities. They should be classified in a net current and a net noncurrent amount. An individual deferred tax liability or asset is classified as current or noncurrent based on the classification of the related asset or liability for financial reporting. A deferred tax asset or liability is considered to be related to an asset or liability if reduction of the asset or liability will cause the temporary difference to reverse or turn around. A deferred tax liability or asset that is not related to an asset or liability for financial reporting, including deferred tax assets related to loss carryforwards, shall be classified according to the expected reversal date of the temporary difference.

Thus, a deferred tax account may be reported as a current asset, a current liability, a noncurrent asset or a noncurrent liability. Generally, a noncurrent deferred tax asset appears in the "Other assets" section of the balance sheet while a noncurrent deferred tax liability appears in the "Long-term liabilities" section.

## CA 19-4

### Part A.

(a) Deferred income taxes are reported in the financial statements when temporary differences exist at the balance sheet date. Deferred taxes are never reported for permanent differences.

The tax consequences of most events recognized in the financial statements for a year are included in determining income taxes currently payable. However, tax laws often differ from the recognition and measurement requirements of financial accounting standards, and differences can arise between: (1) the amount of taxable income and pretax financial income for a year and (b) the tax bases of assets or liabilities and their reported amounts in financial statements. An assumption inherent in an enterprise's balance sheet prepared in accordance with generally accepted accounting principles is that the reported amounts of assets and liabilities will be recovered and settled, respectively. Based on that assumption, a difference between the tax basis of an asset or a liability and its reported amount in the balance sheet will result in taxable or deductible amounts in some future year(s) when the reported amounts of assets are recovered and the reported amounts of liabilities are settled.

A deferred tax liability is reported for the increase in taxes payable in future years as a result of taxable temporary differences existing at the balance sheet date. A deferred tax asset is reported for the increase in taxes refundable in future years as a result of deductible temporary differences existing at the balance sheet date. The most common temporary differences arise from including revenues or expenses in taxable income in a period later or earlier than the period in which they are included in pretax financial income.

(b) 1. Gross profit on installment sales—Deferred income taxes would be recognized when gross profit on installment sales is included in pretax financial income in the year of sale and included in taxable income when later collected.

2. Revenues on long-term construction contracts—Deferred income taxes would be recognized whenever revenues on long-term construction contracts are recognized for financial reporting purposes on the percentage-of-completion basis but deferred for tax purposes.

## CA 19-4 (Continued)

3. Estimated costs of product warranty contracts—Deferred income taxes should usually be recognized because estimated costs of product warranty contracts should be recognized for financial reporting purposes in the year of sale and reported for tax purposes when paid.
4. Premiums on officers' life insurance with Sharapova as beneficiary—This is a permanent difference and deferred income taxes should not be recognized. Premiums on officers' life insurance with Sharapova as beneficiary should be recognized in Sharapova Company's income statement but are not a deductible expense for tax purposes.

### **Part B.**

Deferred income taxes related to a noncurrent asset or liability would be classified as a noncurrent item in the balance sheet. Deferred income taxes are related to an asset or liability if reduction of the asset or liability causes the underlying temporary difference to reverse.

Deferred income taxes that are not related to an asset or liability because: (1) there is no associated asset or liability or (2) reduction of an associated asset or liability will not cause the temporary difference to reverse, would be classified based on the expected reversal date of the specific temporary difference. An expected reversal date beyond one year (or the normal operating cycle) would require noncurrent classification of the deferred income taxes.

Deferred income taxes are to be reported in the balance sheet in the net current and net noncurrent portions. Therefore, deferred income taxes would be classified in the balance sheet as a noncurrent liability when the noncurrent deferred tax liabilities relating to temporary differences exceed the noncurrent deferred tax assets relating to temporary differences. Conversely, they would be classified in the balance sheet as a noncurrent asset when the noncurrent deferred tax assets relating to temporary differences exceed the noncurrent deferred tax liabilities relating to temporary differences.

## CA 19-5

- (a) The 45% tax rate would be used in computing the deferred tax liability at December 31, 2007, if a net operating loss (an NOL) is expected in 2008 that is to be carried back to 2007 (the enacted tax rate is 45% in 2007). (See discussion below.)
- (b) The 40% tax rate would be used in computing the deferred tax liability at December 31, 2007, if taxable income is expected in 2008 (the tax rate enacted for 2008 is 40% and 2008 is the year in which the future taxable amount is expected to occur). (See discussion below.)
- (c) The 34% tax rate would be used in computing the deferred tax liability at December 31, 2007, if a net operating loss (an NOL) is expected in 2008 that is to be carried forward to 2009 (the tax rate enacted for 2009 is 34%). (See discussion below.)

### **Discussion:**

In determining the future tax consequences of temporary differences, it is helpful to prepare a schedule which shows in which future years existing temporary differences will result in taxable or deductible amounts. The appropriate enacted tax rate is applied to these future taxable and deductible amounts. In determining the appropriate tax rate, you must make assumptions about whether the entity will report taxable income or losses in the various future years expected to be affected by the reversal of existing temporary differences. Thus, you calculate the taxes payable or refundable in the future due to existing temporary differences. In making these calculations, you apply the provisions of the tax laws and enacted tax rates for the relevant periods.

## CA 19-5 (Continued)

For future taxable amounts:

1. If taxable income is expected in the year that a future taxable amount is scheduled, use the enacted rate for that future year to calculate the related deferred tax liability.
2. If an NOL is expected in the year that a future taxable amount is scheduled, use the enacted rate of what would be the prior year the NOL would be carried back to or the enacted rate of the future year to which the carryforward would apply, whichever is appropriate, to calculate the related deferred tax liability.

For future deductible amounts:

1. If taxable income is expected in the year that a future deductible amount is scheduled, use the enacted rate for that future year to calculate the related deferred tax asset.
2. If an NOL is expected in the year that a future deductible amount is scheduled, use the enacted rate of what would be the prior year the NOL would be carried back to or the enacted rate of the future year to which the carryforward would apply, whichever is appropriate, to calculate the related deferred tax asset.

## CA 19-6

- (a) Future taxable amounts increase taxable income relative to pretax financial income in the future due to temporary differences existing at the balance sheet date. Future deductible amounts decrease taxable income relative to pretax financial income in the future due to existing temporary differences.

A deferred tax liability should be recorded for the deferred tax consequences attributable to the future taxable amounts scheduled and a deferred tax asset should be recorded for the deferred tax consequences attributable to the future deductible amounts scheduled.

- (b) The carryback and carryforward provisions will affect the amounts to be reported for the resulting deferred tax asset and deferred tax liability.

In computing deferred tax account balances to be reported at a balance sheet date, the appropriate enacted tax rate is applied to future taxable and deductible amounts related to temporary differences existing at the balance sheet date. In determining the appropriate tax rate, you must make assumptions about whether the entity will report taxable income or losses in the various future years expected to be affected by the existing temporary differences. Thus, you calculate the taxes payable or refundable in the future due to existing temporary differences. In making these calculations, you apply the provisions of the tax laws and enacted tax rates for the relevant periods.

For future taxable amounts:

1. If taxable income is expected in the year that a future taxable amount is scheduled, use the enacted rate for that future year to calculate the related deferred tax liability.
2. If an NOL is expected in the year that a future taxable amount is scheduled, use the enacted rate of what would be the prior year the NOL would be carried back to or the enacted rate of the future year to which the carryforward would apply, whichever is appropriate, to calculate the related deferred tax liability.

For future deductible amounts:

1. If taxable income is expected in the year that a future deductible amount is scheduled, use the enacted rate for that future year to calculate the related deferred tax asset.
2. If an NOL is expected in the year that a future deductible amount is scheduled, use the enacted rate of what would be the prior year the NOL would be carried back to or the enacted rate of the future year to which the carryforward would apply, whichever is appropriate, to calculate the related deferred tax asset.

## CA 19-7

- (a) To realize a sizable deferred tax liability, Mesa must have used an accelerated depreciation method for tax purposes while using straight-line depreciation for its financial statements. Once the temporary difference reversed, taxable income would exceed financial accounting income. Mesa would be required to pay the taxes it “deferred” from the years when tax depreciation exceeded book depreciation. To stop this from happening, Mesa would have to sell these plant assets. It probably would have to report a gain on sale, but it likely would be taxed at the favorable capital gains rates. If Mesa buys new plant assets and again uses accelerated depreciation for tax purposes and straight-line for books, it will perpetuate a “deferral” of income taxes.
- (b) The deferral of income taxes means that due to temporary differences caused by the difference in financial accounting principles and tax laws, a company will be able to defer paying its income taxes (or reaping an income tax benefit) until future periods. The practice of selling-off assets before the temporary difference reverses means that the company may pay a lesser amount of taxes to the government. Although some might be concerned that Mesa is not paying its “fair share,” Mesa appears to be minimizing its taxes through a tax strategy plan which is perfectly legal. The federal government has chosen to provide these incentives and there is nothing wrong with Mesa deferring the payable.
- (c) The primary stakeholders who could be harmed by Mesa’s income tax practice are the federal government, which receives fewer taxes as a result of this practice. Ultimately, other taxpayers have to pay more. In addition, if replacement plant assets are very costly to acquire, positive cash flow is reduced. Though the impact should not be great, investors and creditors are affected negatively.
- (d) As a CPA, Henrietta is obligated to uphold objectivity and integrity in the practice of financial reporting. If she thinks that this practice is unethical, then she needs to communicate her concerns to the highest levels of management within Mesa, including members of the Board of Directors and/or the Audit Committee. However, it would appear here that Mesa is simply trying to minimize its income taxes which should not be considered unethical.

## FINANCIAL REPORTING PROBLEM

- (a) (1) Per P&G's 2004 income statement:
- |                                  |                  |
|----------------------------------|------------------|
| "Provision for income taxes..... | \$2,869 million" |
|----------------------------------|------------------|
- (2) Per P&G's June 30, 2004 balance sheet:
- |                              |                  |
|------------------------------|------------------|
| In current assets:           |                  |
| "Deferred income taxes ..... | \$958 million"   |
| In current liabilities:      |                  |
| "Taxes payable .....         | \$2,554 million" |
| In noncurrent liabilities:   |                  |
| "Deferred income taxes ..... | \$2,261 million" |
- (3) Per P&G's 2004 statement of cash flows:
- |   |                  |
|---|------------------|
| In cash flows provided by operating activities: |                  |
| "Deferred income taxes .....                    | \$415 million"   |
| In supplemental disclosure:                     |                  |
| "Cash payments for income taxes.....            | \$1,634 million" |
- (b) P&G's effective tax rates:  
2002: (31.8%), 2003: (31.1%), 2004: (30.7%)
- (c) Provision for income taxes:
- |          |                |
|----------|----------------|
| Current  | \$2,454        |
| Deferred | 415            |
| Total    | <u>\$2,869</u> |
- (d) Significant components of P&G's deferred tax assets and liabilities at June 30, 2004 were as follows:

## FINANCIAL REPORTING PROBLEM (Continued)

### Deferred Tax Assets

Unrealized loss on financial instruments	\$ 381
Loss and other carryforwards	365
Advance payments	226
Other postretirement benefits	95
Other	1,169
Valuation allowances	<u>(342)</u>
	<u>\$1,894</u>

### Deferred Tax Liabilities

Fixed assets	\$(1,350)
Goodwill and other intangible assets	(1,281)
Other	<u>(352)</u>
	<u>\$(2,983)</u>

## FINANCIAL STATEMENT ANALYSIS CASE

- (a) Of the total provision for income taxes (reported in the income statement) the “current taxes” portion represents the taxes payable in cash while the “deferred taxes” represent the taxes payable in future years (although in this case, because the deferred taxes are a credit, they represent tax benefits receivable in future years).
- (b) Future taxable amounts increase taxable income relative to pretax financial income in the future due to temporary differences existing at the balance sheet date. Future deductible amounts decrease taxable income relative to pretax financial income in the future due to existing temporary differences.

A deferred tax liability should be recorded for the deferred tax consequences attributable to the future taxable amounts scheduled and a deferred tax asset should be recorded for the deferred tax consequences attributable to the future deductible amounts scheduled.

- (c) The carryback and carryforward provisions will affect the amounts to be reported for the resulting deferred tax asset and deferred tax liability.

In computing deferred tax account balances to be reported at a balance sheet date, the appropriate enacted tax rate is applied to future taxable and deductible amounts related to temporary differences existing at the balance sheet date. In determining the appropriate tax rate, you must make assumptions about whether the entity will report taxable income or losses in the various future years expected to be affected by the existing temporary differences. Thus, you calculate the taxes payable or refundable in the future due to existing temporary differences. In making these calculations, you apply the provisions of the tax laws and enacted tax rates for the relevant periods.

For future taxable amounts:

1. If taxable income is expected in the year that a future taxable amount is scheduled, use the enacted rate for that future year to calculate the related deferred tax liability.

## **FINANCIAL STATEMENT ANALYSIS CASE (Continued)**

- 2. If an NOL is expected in the year that a future taxable amount is scheduled, use the enacted rate of what would be the prior year the NOL would be carried back to or the enacted rate of the future year to which the carryforward would apply, whichever is appropriate, to calculate the related deferred tax liability.**

### **For future deductible amounts:**

- 1. If taxable income is expected in the year that a future deductible amount is scheduled, use the enacted rate for that future year to calculate the related deferred tax asset.**
- 2. If an NOL is expected in the year that a future deductible amount is scheduled, use the enacted rate of what would be the prior year the NOL would be carried back to or the enacted rate of the future year to which the carryforward would apply, whichever is appropriate, to calculate the related deferred tax asset.**

## COMPARATIVE ANALYSIS CASE

**(a) 2004 provision for income taxes:**

<b>Coca-Cola:</b>	<b>Current portion</b>	<b>\$1,213,000,000</b>
	<b>Deferred portion</b>	<b>162,000,000</b>
	<b>Total expense</b>	<b><u>\$1,375,000,000</u></b>
<b>PepsiCo:</b>	<b>Current portion</b>	<b>\$1,355,000,000</b>
	<b>Deferred portion</b>	<b>17,000,000</b>
	<b>Total expense</b>	<b><u>\$1,372,000,000</u></b>

**(b) 2004 income tax payments:**

<b>Coca-Cola</b>	<b>Approximately \$1,500,000,000</b>
<b>PepsiCo (Note 14)</b>	<b>\$1,833,000,000</b>

**(c) The 2004 U.S. Federal statutory tax rate was 35%.**

**Coca-Cola's effective tax rate in 2004 was 22.1%.**

**PepsiCo's effective tax rate in 2004 was 24.7%.**

Their effective tax rates differ due to the items listed in the reconciliation of U.S. Federal statutory tax rate and effective tax rates. Coca-Cola's rate is lower because of earnings in jurisdictions taxed at rates different from the statutory U.S. federal rate.

	<u>(In millions)</u>	<u>Coca-Cola</u>	<u>PepsiCo</u>
1.	Gross deferred tax assets	\$2,522	\$2,309
	Gross deferred tax liabilities	1,794	2,732

**(e) Net operating loss carryforwards at year-end 2004:**

Coca-Cola had \$3,258 million of operating loss carryforwards available to reduce future taxable income. Loss carryforwards of \$861 million must be utilized within the next five years; \$550 million must be utilized within the next 10 years and the remainder can be utilized over a period greater than 10 years.

PepsiCo had \$4.3 billion of net operating loss carryforwards available to reduce future taxes of certain subsidiaries. \$.1 billion expire in 2005, \$3.1 billion expire between 2006 and 2024, and \$1.1 billion may be carried forward indefinitely.

## RESEARCH CASES

### CASE 1

The answer depends on the companies selected.

### CASE 2

- (a) **The major issue is whether deferred tax liabilities are true liabilities. For growing firms, temporary differences originating in a given period will exceed temporary differences reversing in the same period. When this is the case, net temporary differences do not require cash outflows. Another issue is that even if cash outflows are required in some future period, the liability is overstated because it is not recorded at its present value.**
  
- (b) **Some analysts will treat deferred tax liabilities as equity instead of debt, based on the argument that prior income tax expense was overstated. Other analysts may argue that treating deferred tax liabilities as debt is appropriate as it represents a conservative approach to analysis. A third approach is to treat deferred tax liabilities as part debt and part equity if the likelihood of net reversals is considered to be high.**

## INTERNATIONAL REPORTING CASE

<b>(a) Income Tax Expense.....</b>	<b>2.1</b>	
<b>Deferred Tax Valuation Allowance.....</b>		<b>2.1</b>

As in the U.S., U.K. GAAP for deferred taxes is based on the asset/liability model. However, there is a difference in the periods over which the valuation allowance can be assessed. This apparently results in higher expense (larger valuation allowance) for Tomkins under U.S. GAAP.

- (b) The most significant components of the income adjustments in the reconciliation concern goodwill amortization, provisions for impairments, derivatives, and restructuring costs. Apparently, U.K. GAAP is more conservative for these items, which results in lower income. When accumulated over time, these differences would result in higher stockholders' equity when remeasured using U.S. GAAP. Note that although the amount of adjustment for deferred taxes is small, the differences in these other items can result in differences in deferred tax measurement. For example, in the case of goodwill, U.K. GAAP permits amortization over periods up to 20 years. This results in a different amount of deferred taxes, even if the tax rules are the same between the U.S. and the U.K. In the U.S., goodwill is amortized on a tax basis over 15 year but there is no amortization on the financial statements. Consequently, U.S. companies report a deferred tax liability related to goodwill. There would be no difference in the U.K.**
- (c) Similar to the discussion in (b), the accounting for stock-based compensation in the U.K. would not result in a temporary difference, since no expense is generally recorded for stock options under the intrinsic value approach. However, in the U.S., stock-based compensation expense is recorded based on the fair value method at the grant date. Generally, the tax deduction for stock-based compensation is recognized when the employees exercise the options (or later). Thus, in the U.S., there generally will be a deferred tax asset related to stock-based compensation but not in the U.K.**

**Note to instructor: Tomkins will be switching to IAS in 2005. As noted in Chapter 16, IAS and U.S. GAAP are the same for stock-based compensation. Beginning in 2005, Tomkins will have a temporary difference related to stock options.**

Search Strings: “deferred tax” and “valuation allowance”; “tax planning strategy”

- (a) According to *SFAS No. 109*, par. 21. Future realization of the tax benefit of an existing deductible temporary difference or carryforward ultimately depends on the existence of sufficient taxable income of the appropriate character (for example, ordinary income or capital gain) within the carryback, carryforward period available under the tax law.
- (b) Continuing in par. 21, . . . the following four possible sources of taxable income may be available under the tax law to realize a tax benefit for deductible temporary differences and carryforwards:
  - a. Future reversals of existing taxable temporary differences.
  - b. Future taxable income exclusive of reversing temporary differences and carryforwards.
  - c. Taxable income in prior carryback year(s) if carryback is permitted under the tax law.
  - d. Tax-planning strategies (paragraph 22) that would, if necessary, be implemented to, for example:
    - (1) Accelerate taxable amounts to utilize expiring carryforwards.
    - (2) Change the character of taxable or deductible amounts from ordinary income or loss to capital gain or loss.
    - (3) Switch from tax-exempt to taxable investments.

Evidence available about each of those possible sources of taxable income will vary for different tax jurisdictions and, possibly, from year to year. To the extent evidence about one or more sources of taxable income is sufficient to support a conclusion that a valuation allowance is not necessary, other sources need not be considered. Consideration of each source is required, however, to determine the amount of the valuation allowance that is recognized for deferred tax assets.

- (c) According to par. 22. In some circumstances, there are actions (including elections for tax purposes) that (a) are prudent and feasible, (b) an enterprise ordinarily might not take, but would take to prevent an operating loss or tax credit carryforward from expiring unused, and (c) would result in realization of deferred tax assets. This Statement refers to those actions as tax-planning strategies. An enterprise shall consider tax-planning strategies in determining the amount of valuation allowance required. Significant expenses to implement a tax-planning strategy or any significant losses that would be recognized if that strategy were implemented (net of any recognizable tax benefits associated with those expenses or losses) shall be included in the valuation allowance. Refer to paragraphs 246–251 for additional guidance.

According to par. 25 & 26. In assessing the need for the valuation allowance, an enterprise must use judgment in considering the relative impact of negative and positive evidence. The weight given to the potential effect of negative and positive evidence should be commensurate with the extent to which it can be objectively verified. The more negative evidence that exists (a) the more positive evidence is necessary and (b) the more difficult it is to support a conclusion that a valuation allowance is not needed for some portion or all of the deferred tax asset.

## FINANCIAL ACCOUNTING AND REPORTING (Continued)

The effect of a change in the beginning-of-the-year balance of a valuation allowance that results from a change in circumstances that causes a change in judgment about the realizability of the related deferred tax asset in future years ordinarily shall be included in income from continuing operations.

Thus, besides continuing its improved operating performance, there do not appear to be many tax planning strategies that Hallscott could pursue to support reducing its valuation allowance. As indicated in par. 24 of SFAS No. 109, examples (not prerequisites) of positive evidence that might support a conclusion that a valuation allowance is not needed when there is negative evidence include (but are not limited to) the following:

- a. Existing contracts or firm sales backlog that will produce more than enough taxable income to realize the deferred tax asset based on existing sales prices and cost structures.
- b. An excess of appreciated asset value over the tax basis of the entity's net assets in an amount sufficient to realize the deferred tax asset.
- c. A strong earnings history exclusive of the loss that created the future deductible amount (tax loss carryforward or deductible temporary difference) coupled with evidence indicating that the loss (for example, an unusual, infrequent, or extraordinary item) is an aberration rather than a continuing condition.

Thus, with a couple more years of taxable income, Hallscott likely could support a reduction in its valuation allowance. Another possibility is to extend its warranty terms so that the deductions extend further into the future, but this would increase the cost of the warranty program.

## PROFESSIONAL SIMULATION

### Journal Entries

Income Tax Expense .....	40,840	
Deferred Tax Asset .....	1,200	
Deferred Tax Liability .....		20,000
Income Tax Payable.....		22,040

### Calculation of Deferred Taxes

Temporary Difference	Future Taxable (Deductible) Amounts	Tax Rate	Deferred Tax	
			(Asset)	Liability
Warranty costs	\$ (3,000)	40%	\$(1,200)	
Construction profits	30,000	40%		\$12,000
Depreciation	<u>20,000</u>	40%		<u>8,000</u>
Totals	<u>\$47,000</u>		<u>\$(1,200)</u>	<u>\$20,000*</u>

\*Because of a flat tax rate, these totals can be reconciled:  
 $\$47,000 \times 40\% = \$1,200 + \$20,000.$

### Calculation of Taxable Income

Pretax financial income	\$100,000
Permanent differences	
Fine for pollution	3,500
Tax-exempt interest	(1,400)
Originating temporary differences	
Excess warranty expense per books (\$5,000 – \$2,000)	3,000
Excess construction profits per books (\$92,000 – \$62,000)	(30,000)
Excess depreciation per tax return (\$80,000 – \$60,000)	<u>(20,000)</u>
Taxable income	<u>\$ 55,100</u>
Taxable income for 2007	\$ 55,100
Tax rate	<u>40%</u>
Income tax payable for 2007	<u>\$ 22,040</u>

## PROFESSIONAL SIMULATION (Continued)

Deferred tax liability at the end of 2007		\$ 20,000
Deferred tax liability at the beginning of 2007		<u>0</u>
Deferred tax expense for 2007		<u>\$ 20,000</u>
Deferred tax asset at the end of 2007		\$ 1,200
Deferred tax asset at the beginning of 2007		<u>0</u>
Deferred tax benefit for 2007		<u>\$ (1,200)</u>

## Financial Statements

Income before income taxes		\$100,000
Income tax expense		
Current	\$22,040	
Deferred	<u>18,800</u>	<u>40,840</u>
Net income		<u>\$ 59,160</u>