Solutions to Chapter 1 Problem Assignments

Check Your Understanding

1. [LO 1.1] *Consumption Taxes*

Solution: Consumption taxes are "spending" taxes. They are taxes that are not levied until a person decides to expend funds (whether from income or from savings) for goods or services. The most common consumption tax is the sales tax. Other consumption taxes include excise taxes, value added taxes, and use taxes.

2. [LO 1.4] *Horizontal vs. Vertical Equity*

Solution: Horizontal equity is the concept that argues that persons in the same economic situation should pay equivalent amounts of taxes. The concept of vertical equity states that persons with greater economic wealth should pay a greater amount of taxes and is the foundation for a progressive rate system; conversely, a person with less wealth would pay less tax.

3. [LO 1.4] *Constitutional Authority*

Solution: The 16th amendment to the United States Constitution was passed in 1913.

4. [LO 1.4] *Type of Tax*

Solution: A tax that is designed to discourage the use of a good or service considered undesirable is called a sin tax.

5. [LO 1.5] *Objectives of Taxation*

Solution: There are numerous objectives of taxation; some of the more common goals besides raising revenue to support the functions of government are to promote wealth redistribution, price stability, economic growth, full employment, and desirable social goals.

6. [LO 1.5] *Taxable Persons*

Solution: Only individuals, regular (or C) corporations, and fiduciaries (estates and trusts) pay income taxes.

7. [LO 1.5.] *Gross Revenue vs. Gross Income*

Solution: A business's gross revenue includes all of its receipts from the sale of goods or services; a business's gross income is its gross receipts from sales less the cost of goods sold.

8 [LO 1.5] *Tax Models*

Solution: The individual tax model includes an intermediate income concept called adjusted gross income. As a result, an individual can have deductions both *for* and *from* adjusted gross income. Deductions from adjusted gross income include personal and dependency exemptions and either a standard deduction or itemized deductions. None of these items appear in the corporate tax model. The corporate and individual tax models both include gross income; they are both permitted deductions from gross income to determine taxable income; they both may have additions to tax and

tax credits applied before the final tax liability is determined. Both taxpayers are generally required to make tax prepayments.

9. [LO 1.5] *Adjusted Gross Income*

Solution: Adjusted gross income is used to provide either a threshold or limitation for most of an individual's itemized deductions. It is also used to determine at what point an individual's exemptions and itemized deductions will begin to be phased out.

10. [LO 1.5] *Filing Status*

Solution: The four filing statuses are single, married filing jointly, married filing separately, and head of household. (The surviving spouse category included within the married filing jointly category is discussed in Chapter 11.) The standard deduction for a dependent is subject to limitation although there is no separate filing status for the dependent.

11. [LO 1.5] *Exemptions*

Solution: The personal exemption is the deduction a self-supporting person takes for him or herself on his or her own tax return. The dependency exemption is the deduction an individual takes for another person, a dependent, whose support is provided by that individual.

12. [LO 1.5] *Property Dispositions*

Solution: To determine the gain or loss on business or investment property, the taxpayer subtracts the adjusted basis of the property sold from the amount received on the sale. If the result is positive, there is a gain. If the adjusted basis exceeds the amount received, there is a loss.

13. [LO 1.5] *Deductions vs. Credits*

Solution: A tax credit is a dollar for dollar reduction in a tax liability. A tax deduction only reduces a person's tax in an amount equal to the deduction times the marginal tax rate. Compare a $1,000 deduction with a $1,000 credit for a person with a $20,000 tax liability whose marginal tax rate is 28 percent. The $1,000 credit reduces the person's tax to $19,000. The $1,000 deduction, however, will only reduce the person's tax by $280 ($1,000 x 28%) to $19,720. The value of a tax deduction is dependent upon the person's marginal tax rate; the value of a tax credit is independent of the marginal tax rate and benefits all taxpayers equally.

14. [LO 1.6] *Sole Proprietorship*

Solution: Only one taxable person, who must be an individual, can own a sole proprietorship. The sole proprietor is personally liable for all debts of the business. The sole proprietor cannot be an employee of the business. The results of operations of the sole proprietorship are reported on the Schedule C and these are then included in the owner's personal tax return. A partnership must have more than one owner. A general partner is liable for partnership debts but limited partners are only liable for their investment in the partnership. Like sole proprietors, partners cannot be employees of the partnership. Although partnerships

do not pay taxes directly, they must file information tax returns. The income/loss from the partnership flows through to the partners and is reported on their own tax returns. If the partners are individuals, these results are reported on Schedule E (included in the personal tax return) and they pay any taxes owing on the income items.

Partnerships and limited liability companies differ in a number of ways. Owners of partnerships are partners while owners of limited liability companies are called members. There are no legal requirements to set up a partnership but a limited liability company must be established according to the laws of the state of domicile. Limited liability companies can elect to be taxed as corporations while partnerships do not have that option. In some states, a limited liability company may have only one owner but a partnership must have two or more owners. General partners are normally required to pay self-employment taxes while only the managing member of a limited liability company may be subject to self-employment taxes. Other items of comparison could be drawn from the table in the text comparing business entity attributes.

15. [LO 1.6] *Corporations*

Solution: The principal difference between a C corporation and an S corporation is in the method of taxation. A corporation pays a tax directly on its income. Any net after-tax income that is distributed to its shareholders as dividends is subject to a second level of tax. Thus, these corporate earnings are said to be subject to double taxation. An S corporation's income flows directly through to its shareholders (whether there is an actual distribution of this income in cash or not) undiminished by taxes at the corporate level. The income is then taxed once only at the shareholder level. The corporation can then make actual distributions of this previously-taxed income to the S corporation shareholders without any additional taxes due. There are a number of other differences in that the number and type of S corporation shareholders is limited; it can only have one class of stock outstanding, and its choice of tax year is restricted. None of these restrictions apply to a C corporation. Other items of comparison could be drawn from the table in the text comparing business entity attributes.

Crunch the Numbers

16. [LO1.1] *Property Taxes*

Solution: He will pay $750. $20,000,000 / $4,000,000,000 = .005 or 5 mills per $1 of valuation. $150,000 x .005 = $750 in tax

17. [LO 1.2] *FICA Taxes*

Solution: 2015: $40,000 x 7.65% = $3,060

No change for 2014: $40,000 x 7.65% = $3,060

18. [LO 1.2] *FICA Taxes*

Solution: 9,377.00 is withheld for FICA taxes in 2015.

$118,500 x 6.2% =	$7,347.00
$140,000 x 1.45% =	2,030.00

Total	$9,377.00

$9,284 is withheld for FICA taxes in 2014.

$117,000 x 6.2% =	$7,254.00
$140,000 x 1.45% =	2,030.00
Total	$9,284.00

In 2014, the taxpayer would have paid $93 less in Social Security taxes than in 2015 due to the $1,500 lower wage base on which the tax was levied.

19. [LO 1.5] *Taxable Income*

Solution: Taxable income = $29,700

	$40,000	Salary
minus	6,300	Standard deduction
minus	4,000	Personal exemption
equals	$29,700	Taxable income

20. [LO 1.5] *Taxable Income*

Solution: Taxable income = $47,250

	$71,000	Salary
Plus	1,500	Interest income
minus	9,250	Standard deduction
minus	16,000	Personal and dependency exemptions ($4,000 x 4)
equals	$47,250	Taxable income

21. [LO 1.5] *Taxable Income*

Solution: Taxable income = $49,000

	$450,000	Gross receipts
minus	145,000	Cost of goods sold
equals	$305,000	Gross income
plus	20,000	Gain on sale
minus	276,000	Expenses
equals	$49,000	Taxable income

The $500 interest on State of New York bonds is tax-exempt.

22. [LO 1.5] *Taxable Income*

Solution: Taxable income = $237,500

	$560,000	Gross income
plus	2,500	Interest income
minus	325,000	Expenses
equals	$237,500	Taxable income

The $20,000 capital loss is not deductible currently.

23. [LO 1.5] *Taxable Income*

Solution: Taxable income = $74,000

	George's salary	$65,000
plus	Mary's salary	45,000
equals	AGI	$110,000
minus	Itemized deductions	20,000
minus	Standard deduction	0
minus	Personal & dependency exemptions ($4,000 x 4)	16,000
equals	Taxable income	$74,000

24. [LO 1.5] *Determining Tax Liability*

Solution: Taxable income = $29,700; income tax = $3,993.75

Income Tax: ($9,225 x 10%) + ($20,475 x 15%) = $3,993.75.

25. [LO 1.5] *Determining Tax Liability*

Solution: Taxable income = $47,250; income tax = 6,430.

Income Tax: ($13,150 x 10%) + ($34,100 x 15%) = $6,430

26. [LO 1.5] *Determining Tax Liability*

Solution: Taxable income = $49,000; income tax = $7,350.

Income Tax: $49,000 x 15% = $7,350.

27. [LO 1.5] *Determining Tax Liability*

Solution: Taxable income = $237,500; Income tax = $75,875

$50,000 x 15% =	$7,500
$25,000 x 25% =	6,250
$25,000 x 34% =	8,500
$137,500 x 39% =	53,625
Total tax	$75,875

28. [LO 1.5] *Determining Tax Liability*

Solution: They save $1,760 ($11,937.50 - $10,177.50) by itemizing their deductions. Taxable income with itemizing = $74,000; Taxable income taking standard deduction = $81,400 ($110,000 in salaries - $12,600 standard deduction - $16,000 exemptions).

Income Tax Calculation:

Itemizing		Standard Deduction	
$18,450 x 10% =	$1,845.00	$18,450 x 10% =	$1,845.00
$55,550 x 15% =	$8,332.50	$56,450 x 15% =	$8,467.50
	---	$ 6,500 x 25% =	$1,625.00
	$10,177.50		$11,937.50

29. [LO 1.5] Marriage Penalty

Solution: They have a marriage penalty of $264 ($31,851.50 - $31,587.50).

Tax on $160,000 (MFJ)		Tax on $80,000 (Single)	
$18,450 x 10% =	$ 1,845.00	$ 9,225 x 10% =	$ 922.50
$56,450 x 15% =	8,467.50	$28,225 x 15% =	4,233.75
$76,300 x 25% =	19,075.00	$42,550 x 25% =	10,637.50
$8,800 x 28% =	2,464.00	Total =	$15,793.75
Total =	$31,851.50	Total x 2 =	$31,587.50

30. [LO 1.5] *Joint vs. Single Filing*

Solution: a. It will be to their advantage to marry in 2015.

b. By marrying before the end of 2015 and filing jointly, they save $6,019.75 ($43,471.25 - $37,451.50) in taxes.

Tax on $180,000 (MFJ)		Tax on $180,000 (Single-Conrad)	
$18,450 x 10% =	$ 1,845.00	$9,225 x 10% =	$ 922.50
$56,450 x 15% =	8,467.50	$28,225 x 15% =	4,233.75
$75,300 x 25% =	19,075.00	$53,350 x 25% =	13,325.00
$28,800 x 28% =	8,064.00	$89,250 x 28% =	24,990.00
Total =	$37,451.50	Total =	$43,471.25

c. If they each have $90,000 of income, they would each pay $18,293.75 in taxes and they would then have a marriage penalty of $864 ($37,451.50 - $36,587.50). In this case, they would be slightly better off by postponing their wedding until 2016.

Tax on $90,000 (Single)	
$ 9,225 x 10% =	$ 922.50
$28,225 x 15% =	4,233.75
$52,550 x 25% =	13,137.50
Total =	$18,293.75
Total x 2 =	$36,587.50

31. [LO 1.5] *Tax Liability*

Solution: William's income is twice John's, but his taxes are 2.67 ($10,793.75/$4,038.75) times John's. This illustrates the progressive nature of the tax system as well as vertical equity.

John's tax on $30,000		William's tax on $60,000	
$9,225 x 10% =	$ 922.50	$ 9,225 x 10% =	$ 922.50
$20,775 x 15% =	3,116.25	$28,225 x 15% =	4,233.75
		$22,550 x 25% =	5,637.50
Total =	$4,038.75	Total =	$10,793.75

32. [LO 1.5] *Tax Liability*

Solution: Lilikoi paid $6,000 tax for 2013 and $30,050 tax for 2014. Lilikoi will have a refund of $9,900 from carrying back $40,000 of the 2015 loss to 2013 and $10,000 of the loss to 2014. (Note that Lilikoi cannot carry the loss back to only 2014 without first carrying it back to 2013.)

Tax paid for 2013 on $40,000 was $40,000 x 15% = $6,000

Tax paid for 2014 on $120,000 was ($50,000 x 15%) + ($25,000 x 25%) + ($25,000 x 34%) + ($20,000 x 39%) = $30,050.

The $10,000 loss that is carried back to 2014 reduces the taxable income for that year from $120,000 to $110,000 saving tax at the 39% rate that applies to income between $110,000 and $120,000.

Tax refund from 2015 loss is ($40,000 x 15%) + ($10,000 x 39%) = $9,900

33. [LO 1.5] *Tax Liability*

Solution: The net tax liability is $20,000.

$250,000 gross income - $125,000 expenses = $125,000 taxable income.

The income tax liability is:

$50,000 x 15% =	$7,500
$25,000 x 25% =	6,250
$25,000 x 34% =	8,500
$25,000 x 39% =	9,750
Gross tax =	$32,000
Less tax credit	12,000
Net tax =	$20,000

34. [LO 1.5] *Tax Liability*

Solution: Taxable income = $49,000 and the net tax liability = $6,187.50.

$76,000 salary and wages - $15,000 itemized deductions - $12,000 ($4,000 x 3) personal and dependency exemptions = $49,000 taxable income.

Income tax liability is:

$18,450 x 10% =	$1,845.00
$31,550 x 15% =	4,582.50
Tax before credit =	$6,427.50
Less tax credit	240.00
Net tax =	$6,187.50

35. [LO 1.5] *Alternative Minimum Tax*

Solution: The regular tax is $153,000 and the alternative minimum tax is $27,400.

Regular tax: $450,000 x 34% = $153,000. Note that this $153,000 is the same tax that would be computed by going through all of the tax brackets as follows: ($50,000 x 15%) + ($25,000 x 25%) + ($25,000 x 34%) + ($235,000 x 39%) + ($115,000 x 34%) = $153,000. This illustrates that for corporations with taxable income between $335,000 and $10,000,000, the benefit of the lower tax brackets is completely eliminated by the 5% surtax on income between $100,000 and $335,000.
Tentative alternative tax: $902,000 x 20% = $180,400
Alternative minimum tax: $180,400 - $153,000 = $27,400
The corporation will pay a total tax of $180,400 ($153,000 regular tax + $27,400 AMT)

36. [LO 1.5] *Alternative Minimum Tax*

Solution: The alternative minimum tax would be $21,420.75

Regular tax on $140,000:	
$ 9,225 x 10% =	$922.50
$28,225 x 15% =	4,233.75
$5,300 x 25% =	13,325.00
$49,250 x 28% =	13,790.00
	$32,271.25

Tentative alternative minimum tax on $205,000: ($185,400 x 26%) + ([$205,000 - $185,400] 28%) = $48,204 + $5,488 = $53,692.

The alternative minimum tax: $53,692 - $32,271.25 = $21,420.75
Betty will pay a total tax of $53,692 ($32,271.25 regular tax + $21,420.75 AMT)

37. [LO 1.5] *Estate Income Tax*

Solution: The estate will pay $6,228.70.

$2,500 x 15% =	$375.00
$3,400 x 25% =	850.00
$3,150 x 28% =	882.00
$3,250 x 33% =	1,072.50
$7,300 x 39.6 =	3,049.20
Total tax	$6,228.70

38. [LO 1.1 & 1.5] *Differing Types of Taxes*

Solution: a. Wealth taxes are levied on assets owned by an individual or a business; the most common wealth tax is the property tax which comes in several forms such as real property taxes, inventory taxes, or taxes on plant and equipment. Wealth transfer taxes are only levied when the goods owned by one person are passed gratuitously to another as a gift or a bequest. Estate and inheritance taxes are wealth transfer taxes.

b. The most common consumption tax is the sales tax which is based on the purchase price of goods or services when they are acquired by the spending of one's income or savings. An income tax is levied on the increase in wealth as it is earned regardless of whether that income is actually spent or saved. If a single individual has $37,450 of taxable income in 2015, he will pay taxes of $5,156.25 on this amount even if he saves all or part of the after-tax income. In addition, any income on savings would also be taxed when earned. If this same individual were able to save all of the $37,450, under a consumption tax he would pay no taxes until he actually spent that income. The money saved would be available for investment and that income would not be taxed until it was spent.

c. The 25% tax bracket for a married couple extends to $151,200 in 2015. This would be equivalent to two single individuals with equal incomes earning $75,600 each. Beyond $151,200, the married filing jointly rate increases to 28% and they begin to be subject to the marriage penalty. Single individuals remain in the 25% tax bracket until their income exceeds $90,750.

39. [LO 1.6] *Tax Liability*

Solution: Taxable income = $28,700 and the tax liability is $3,843.75

	$46,000	Salary
minus	7,000	Partnership loss (50% x $14,000)
equals	$39,000	Gross income
minus	6,300	Standard deduction
minus	4,000	Personal exemption
equals	$28,700	Taxable income
		Tax calculation
	$922.50	$9,225 x 10%
	2,921.25	$19,475 x 15%
	$3,843.75	

Note that this solution assumes that Carolyn has at least $7,000 basis in her partnership interest so that she can deduct her full loss this year.

40. [LO 1.6] *Tax Liability Comparisons*

Solution: Partnership: Pays no tax. June and John are each taxed on the $32,000 passed through to them at their marginal tax rates.

To determine their marginal tax rates, find the tax bracket in which their other taxable income falls. (Note that the "other ordinary taxable income" is provided; either the standard or their itemized deductions and the personal exemptions have already been subtracted.) June's $475,000 of other ordinary taxable income puts her in the 39.6% marginal tax bracket because she is a head of household with taxable income over $439,000. John's $32,000 straddles the 25% and 28% marginal tax brackets because his $130,000 of taxable income plus the additional $32,000 exceeds $151,200 – the 25% tax bracket. Thus, $21,200 is taxed at 25% and $10,800 ($162,000 - $151,200) is taxed at 28% for a married taxpayer filing a joint return.

June's tax = $32,000 x 39.6% = $12,672.

John's tax = [$21,200 x 25% = $5,300] + [10,800 x .28 = $3,024] = $8,324.

Together they pay a total of $20,996 in taxes.

S Corporation: Pays no tax. June and John are each taxed on the $32,000 passed through to them at their marginal tax rates as shown above for the partnership and together they pay $20,996 in taxes.

C Corporation: The corporation pays a tax of $11,000 [($50,000 x 15%) + ($14,000 x 25%)].

Neither June nor John pay any taxes as they received no distributions from the corporation.

Note the problem specified only income taxes; employment taxes are not included in the solution to this problem.

41. [LO 1.6] *Tax Liability Comparisons*

Solution: Partnership: The answer does not change because June and John are taxed fully on their shares of income whether they are distributed or not and the partnership pays

no tax. Thus, June's tax is still $12,672 and John's tax is $8,324 for a total of $20,996 in taxes. They pay no additional tax on the $28,000 distribution.

S Corporation: The answer does not change because June and John are taxed fully on their shares of income whether they are distributed or not and the S corporation pays no tax. Thus, June's tax is still $12,672 and John's tax is $8,324 for a total of $20,996 in taxes. They pay no additional tax on the $28,000 distribution.

C Corporation: The corporation pays the same tax of $11,000 [($50,000 x 15%) + ($14,000 x 25%)]. June and John, however, will now have to recognize $28,000 of dividend income; John will be taxed at the 15% dividend rate but June will be taxed at 20% (the dividend rate for taxpayers in the 39.6% marginal tax bracket).
June's tax = $28,000 x 20% = $5,600.
John's tax = $28,000 x 15% = $4,200.
The total tax for the corporation, June, and John is $20,800 ($11,000 + $5,600 + $4,200).

Note the problem specified only income taxes; Medicare surtaxes and employment taxes are not included in the solution to this problem.

42. [LO 1.6] *Tax Liability Comparisons*

Solution: Partnership: The partnership does not benefit from the loss. June and John are each allocated $22,000 of loss and can deduct the loss against their other income because they have sufficient basis in the partnership [$15,000 invested + ($30,000 bank loan x 50%) = $30,000 basis before loss - $22,000 loss = $8,000 ending basis]. June's and John's incomes are high enough for them to remain fully in their respective marginal tax rates of 39.6% and 25%. June benefits from a reduction in taxes of $8,712 ($22,000 x 39.6%) and John saves $5,500 ($22,000 x 25%) in taxes at his marginal tax rate. The total tax savings for both are $14,212 ($8,712 + $5,500).

S Corporation: The S corporation does not benefit from the loss. June and John are each allocated $22,000 of the loss but they can only deduct $15,000 of this loss against their other income because their deduction is limited to their basis in their S corporation stock (which does not include any of the corporation's liabilities). Thus, June benefits from a reduction in taxes of $5,940 ($15,000 x 39.6) at her marginal tax rate. John reduces his taxes by $3,750 ($15,000 x 25%) at his marginal tax rate. They will each carry their excess $7,000 loss forward; these losses can be deducted in a future year when they have sufficient basis. The total tax savings for the current year is $9,690 ($5,940 + $3,750).

C Corporation: Neither June nor John have any current tax savings from the $44,000 loss. As a new corporation, it can only carry its loss forward to offset income (and realize tax savings) in a future year. Losses of a C corporation do not pass through to shareholders.

Note the problem specified only income taxes; Medicare surtaxes and employment taxes were not included in the solution.

43. [LO 1.6] *Choice of Business Entity*

Solution: a. (1) The partnership does not pay any tax in years 1 or 2.
(2) The S corporation does not pay any tax in years 1 or 2.

(3) The C corporation pays no tax in year 1 but its year-1 loss can be carried forward to year 2 to offset $54,000 of its year-2 $60,000 income; it will pay a tax of $900 ($6,000 x 15%) on this remaining $6,000 income in year 2.

b. (1) Tax savings for first year of partnership: Clara and Charles are each allocated $27,000 of loss and each can deduct loss to the extent of his or her basis of $25,000 [$15,000 investment + (50% x $20,000 loan)]. Clara's tax savings will be $7,000 ($25,000 deductible loss x 28%) and Charles's tax savings will be $6,250 ($25,000 deductible loss x 25%). The excess loss is carried forward to the next year.

Partner's basis computations:

$15,000	Partner's original investment
+10,000	Partner's share of liabilities ($20,000 loan x 50%)
$25,000	Basis before deducting loss
- 25,000	Deductible loss ($54,000 loss x 50% = $27,000 but limited to basis and $2,000 excess loss carried forward)
0	Basis at end of first year

(2) Tax savings for first year of S corporation: Clara and Charles are each allocated $27,000 of loss and can deduct loss to the extent of his or her basis of $15,000 in the S corporation stock. Clara's tax savings will be $4,200 ($15,000 deductible loss x 28%) and Charles's savings will be $3,750 ($15,000 deductible loss x 25%).

S corporation shareholder's stock basis computations:

$15,000	Shareholder's original investment
-15,000	Deductible loss ($54,000 loss x 50% = $27,000 but limited to basis and $12,000 excess loss carried forward)
0	Basis at end of first year

Note that an S corporation shareholder does not increase stock basis for any corporate liabilities.

(3) First year of C corporation: No effect on Clara or Charles. Their basis in stock remains $15,000 each.

c. (1) Income tax for second year of partnership: Clara pays $7,840 income tax [($30,000 profit - $2,000 loss carried forward) x 28%] and Charles pays $7,000 income tax [($30,000 profit - $2,000 loss carried forward) x 25%]. The cash distribution is not taxed but is a reduction of basis.

Partner's basis computations:

0	Basis at end of first year
$30,000	Year 2 profit ($60,000 x 50%)
- 5,000	Cash distribution
$25,000	Subtotal
- 2,000	Deduct loss carried forward from previous year
$23,000	Basis at end of second year

(2) Income tax for second year of S corporation: Clara pays $5,040 in tax [($30,000 profit - $12,000 loss carried forward) x 28%] and Charles pays $4,500 tax [($30,000 profit - $12,000 loss carried forward) x 25%]. The cash distribution is not taxed but is a reduction of basis.

S corporation shareholder's stock basis computations:

0	Basis at end of first year
$30,000	Year 2 profit ($60,000 x 50%)
- 5,000	Cash distribution
$25,000	Subtotal
- 12,000	Deduct loss carried forward from previous year
$13,000	Basis at end of second year

(3) Income tax for second year of C corporation: Clara and Charles each pay $750 tax on their dividend income ($5,000 dividend income x 15% dividend rate = $750 tax). Their basis in the corporate stock remains $15,000.

44. [LO 1.6] *Partnership Basis*

Solution: His basis is $5,200.

$4,000 beginning basis + (30% x $7,000 partnership income) – (30% x $3,000 distribution) = $4,000 + $2,100 - $900 = $5,200

45. [LO 1.6] *Tax Rates*

Solution: .05 x ($335,000 - $100,000) = $11,750
$50,000 (.34 - .15) = $9,500
($75,000 - $50,000)(.34 - .25) = $2,250.
$9,500 + $2,250 = $11,750

46. [LO 1.6] *Tax Rates*

Solution: .03 ($18,333,333 - $15,000,000) = $100,000
(.35 - .34)($10,000,000) = $100,000

Develop Planning Skills

47. [LO 1.6] *Single vs. Married Filing Status*

Solution:

	Married Filing Separately	Married Filing Jointly	Single
Gross Income	$100,000	$200,000	$100,000
Personal exemptions	-4,000	-8,000	-4,000
Standard deduction	-6,300	-12,600	-6,300
Taxable income	$89,700	$179,400	$89,700
Tax Rates	Tax for MFS	Tax for MFJ	Tax for Single
10% x	$ 9,225 = $ 922.50	$18,450 = $1,845.00	$9,225 = $ 922.50
15% x	28,225 = 4,233.75	56,450 = 8,467.50	28,225 = 4,233.75
25% x	38,150 = 9,537.50	76,300 = 19,075.00	52,250 = 13,062.50
28% x	14,100 = 3,948.00	28,200 = 7,896.00	----------
Total Tax	18,641.75	$37,283.50	$18,218.75
x 2	$37,283.50		$36,437.50

It makes no difference if they marry this year and file either as married filing jointly or separately. If they postpone the wedding until next year, they will save $846.00 ($37,283.50 - $36,437.50) in taxes filing as single individuals this year.

48. [LO 1.7] *Total Tax Comparisons*

Solution: Sole Proprietorship: Jeremy will be taxed on the entire net income from the sole proprietorship of $48,000 ($60,000 – $12,000) regardless of the "salary." $48,000 - $4,000 personal exemption - $6,300 standard deduction = $37,700 taxable income; (10% x $9,225) + (15% x $28,225) + ($250 x 25%) = $922.50 + $4,233.75 + $62.50 = $5,218.75 income tax.

Corporation: $60,000 - $12,000 - $30,000 = $18,000 taxable income; $18,000 x 15% = $2,700 income tax. Income tax on Jeremy's $30,000 salary: Jeremy's taxable income = $30,000 - $6,300 standard deduction - $4,000 personal exemption = $19,700. Tax on $19,700 = ($9,225 x 10%) + ($10,475 x 15%) = $922.50 + $1,571.25 = $2,493.75. Total taxes as a corporation = $2,700 + $2,493.75 = $5,193.75

Based solely on income taxes, Jeremy should incorporate because his taxes will be $25 ($5,218.75 - $5,193.75) less than operating as a sole proprietorship.

49. [LO 1.6] *Charitable Deduction*

Solution: As a married couple, their standard deduction is $12,600 in 2015 and estimated at $12,800 for 2016. The 10 percent they plan to give to charity is $13,500 in 2015 and is expected to be $14,000 in 2016. Their total planned contribution is $27,500 ($13,500 + $14,000) over the two years and they have saved sufficient funds to contribute the entire amount in one year. If they contribute the entire $27,500 in 2015, their taxable income would be $99,500 ($135,000 - $8,000 personal exemptions - $27,500 contribution) which is $14,900 less than their $114,400 taxable income if they claim the standard deduction ($135,000 - $8,000 personal exemptions - $12,600 standard deduction). This $14,900 savings in taxable income is within the 25% tax bracket. Their tax savings for 2015 are $3,725 [($14,900 x 25%) by doubling up their donations at the end of this year

Under the assumption of no change in tax rates and only a $200 increase in the standard deduction, however, they would have reduced tax savings of $50 ($200 x 25%) in 2016, but one year later; in the meantime they could benefit from any income earned on the contribution until made in 2016. This would have to be compared to the additional income on their savings, however, if the contribution were postponed.

50. [LO 1.7] *After-Tax Return*

Solution: The after-tax interest on the taxable bonds equals 6% (1 - .34) = 3.96%. The 4.5 percent interest rate on the tax-exempt bonds provides the better return.

51. [LO 1.7] *Tax Liability Comparison*

Solution: Regular C Corporation: FICA tax on Carol's $60,000 salary is $4,590 ($60,000 x 7.65%). FUTA = $420 ($7,000 x 6%)

Corporate taxable income = $200,000 - $75,000 - $60,000 salary - $4,590 FICA - $420 FUTA= $59,990.

Income tax on $59,990 = ($50,000 x 15%) + ($9,990 x 25%) = $7,500 + $2,497.50 = $9,997.50.

Total corporate taxes = $4,590 + $420 +$9,997.50 = $15,007.50.

Carol's taxes: Carol also pays $4,590 ($60,000 x 7.65%) in FICA taxes on her salary but she cannot deduct these taxes.
Carol's taxable income = $60,000 - $6,300 standard deduction - $4,000 personal exemption = $49,700.
Income tax on $49,700 = ($9,225 x 10%) + ($28,225 x 15%) + ($12,250 x 25%) = $922.50 + $4,233.75 + $3,062.50 = $8,218.75.
Carol's total taxes = $8,218.75 + $4,590 = $12,808.75.
Total taxes = $15,007.50 + $12,808.75 = $27,816.25

S Corporation: FICA tax on Carol's $60,000 salary is $4,590 ($60,000 x 7.65%).
FUTA = $420 ($7,000 x 6%).
The net S corporation income of $59,990 (same as the regular corporation) is passed through to Carol for taxation along with her salary income.
Carol's taxable income = $60,000 salary + $59,990 corporation income - $6,300 standard deduction - $4,000 exemption = $109,690.
Tax on Carol's $109,690 taxable income = ($9,225 x 10%) + ($28,225 x 15%) + ($53,300 x 25%) + ($18,940 x 28%) = $922.50 + $4,233.75 + $13,325 + $5,303.20 = $23,784.45
Carol's total tax = $23,784.45 + $4,590 = $28,374.45
Total taxes = $28,374.45 + $4,590 +$420 = $33,384.45

Based on 2015 total taxes only, Carol should not make the S corporation election because the total taxes will be $5,568.20 ($33,384.45 - $27,816.25) less operating as a regular C corporation.

Think Outside the Text

These questions require answers that are beyond the material that is covered in this chapter.

52. [LO 1.2] *Tax Rates*

Solution:

Income Tax Rate on salary	Employment Tax Rate	Capital Gains Tax Rate
15%	7.65%	0%
28%	6.2% up to $118,500 and 1.45% on $132,000	15%
28%	6.2% up to $118,500 and 1.45% on $176,000 salary	15% on the first $24,000 and 18.6% on the remaining $115,000
33%	6.2% up to $118,500; 1.45% to $200,000; 2.35% above $200,000	18.6% on the first $128,200 (up to AGI of $413,200) and 23.6% on remaining $119,800

53. [LO .3] *Tax Fairness*

Solution: No answer is suggested here as the purpose of this question is to require the student to select an alternative and construct an argument to support that position.

54. [LO 1.3] *Property Tax*

Solution: As an ad valorem tax, a property tax is proportional. If you look at any other taxing base except the value of the property, the tax may be progressive for some group of citizens and regressive for others. For example, senior citizens generally have lower incomes than working persons. They may live in equivalently valued houses because they have lived there a long time and have no mortgage, however. In this case, based on a percentage of income, the property tax would be regressive. Alternatively, a lower income person may spend only 25 percent of his or her income on housing because of other necessities. A high-income person may be able to spend 40 percent of his or her income on housing. The latter's property taxes will be much higher as a percent of income than the former. In this situation, the tax is progressive when based on income. Thus, for a wealth tax such as a property tax, wealth is the only base on which it is practical to evaluate it. It is generally proportional, although a certain base amount may be excluded from the tax (for example, a $25,000 homestead exemption for persons who own their own home and this would make it somewhat progressive).

55. [LO 1.3] *Canons of Taxation*

Solution: The four canons of taxation are equity, economy, certainty, and convenience. In general, with the exception of an evaluation based on equity, many persons believe the sales tax that most states levy is superior to the income tax. The costs to collect and comply with the sales tax are relatively small compared to the amounts collected (although internet sales are a significant problem now); most persons know that when they purchase certain items they are required to pay sales taxes; and they pay at the point of sale without having to file end-of-year returns. Sales taxes are considered regressive, however, and therefore not considered equitable. As a percentage of income, lower income persons pay more sales tax than higher income persons do because they are obliged to spend more of their income. As an absolute amount, however, most wealthy persons spend more overall than poor persons, and, as a result pay more sales taxes (vertical equity). Two persons with equal incomes can pay different amounts of sales taxes, however, if one party chooses to save money while the other spends; this would violate horizontal equity. The income tax has far higher costs of collections and administration but its tax rates are progressive and it contains provisions that exempt low-income taxpayers from paying any taxes. Thus, it is generally seen as more equitable than a sales tax. It fails, however, on convenience and certainty because of the annual filing requirements and constant changing of the laws.

56. [LO 1.3] *Flat Tax*

Solution: Most students will agree that there will have to be some basic exclusions or deductions to enact a viable flat tax. Comparisons can be drawn, however, to the FICA taxes, which have been flat over incomes up to the Social Security base amount ($118,500 for 2014), but only the Medicare portion applies above this base amount; an income flat tax, on the contrary, could be structured to exempt a certain base amount from tax with the tax applying on all income above that minimum

excluded base. Discussions of a flat tax can often lead to discussions of higher minimum wages, guaranteed annual incomes and negative income taxes in order to keep the flat tax relatively simple.

57. [LO 1.4] *Marriage Penalty*

Solution: An evaluation of this proposal at this point usually focuses on the cost to the taxpayer in time and money to determine the tax under the dual system. Other problems arise in the dividing up of dependency exemptions, itemized deductions, and tax credits. If taxpayers are allowed to choose the method that allows them to pay the lower tax, there will also be a decline in total tax revenues. To some degree taxpayers have a choice now – but the difference in tax rates from single to married filing separately and the requirement that both must either choose the standard deduction or itemize deductions limits their "gaming the system."

58. [LO 1.4] *After-Tax Cost of Itemized Deductions*

Solution: The after-tax cost of the $13,500 expenditure for interest expense, property taxes, and the charitable contribution is $11,675.

A tax savings only results to the extent the deductible expenses exceed the standard deduction. The taxpayer's total itemized deductions are $13,500. In 2015, a single taxpayer's standard deduction is $6,300. The interest, property taxes, and charitable contribution increase his deduction by $7,200 ($13,500 - $6,300).

Taxable income using itemized deductions = $62,500 ($80,000 - $13,500 - $4,000 personal exemption).

Taxable income using the standard deduction = $69,700 ($80,000 - $6,300 standard deduction - $4,000 personal exemption).

Tax on $62,500		Tax on $69,700	
$9,225 x 10% =	$ 922.50	$9,775 x 10% =	$ 977.50
$28,225 x 15% =	4,233.75	$28,225 x 15% =	4,233.75
$25,050 x 25% =	6,262.50	$32,250 x 25% =	8,062.50
Total	$11,418.75	Total	$13,273.75

The reduction in taxes by itemizing is $1,855 ($13,273.75 - $11,418.75). The after-tax cost of the $13,500 interest, property taxes, and charitable contribution is $11,645 ($13,500 - $1,855).

59. [LO 1.4] *After-Tax Interest Rate*

Solution: The interest rate = 4.34%.

The $7,000 interest ($100,000 x 7%) would reduce taxes by $2,660 ($7,000 x 38%). Thus the net interest paid is $4,340 ($7,000 - $2,660). The after-tax interest rate is 4.34% ($4,340/$100,000). Alternatively, this can be calculated directly as 7% (1 - .38) = 4.34%

60. [LO 1.5] *Deductions vs. Credit*

Solution: Taxable income = $50,000; marginal tax bracket = 25%. Tax savings from the $4,000 deduction = $1,000 (25% x $4,000).

Taxable income = $200,000; marginal tax bracket = 33%. Tax savings from the $4,000 deduction = $1,320 (33% x $4,000).

A $4,000 tax credit reduces each taxpayer's tax by $4,000. The tax savings from a tax credit is independent of the taxpayer's marginal tax rate.

Search the Internet

For the following four problems, consult the IRS Web site (www.irs.gov).

61. [LO 1.1] *Statistical Information*

Solution: On the IRS.gov home page search for tax statistics or click on Tax Stats, Facts and Figures at the bottom of the page to access *www.irs.gov/uac/Tax-Stats*-2. There are links to a wide range of tables, articles, and data that describe and measure elements of the U.S. tax system. These include statistics and other information about returns filed with the IRS. Headings under this section include: Business Tax Statistics; Individual Tax Statistics; IRS Operations & Budget; Statistics of Income (SOI); Charitable & Exempt Org. Statistics; Products, Publications, & Papers; Statistics by Form; Other IRS Data and Research, Additional Information; and What's New.

62. [LO1.1] *Asking Questions or Making Comments to the IRS*

Solution: On www.irs.gov/uac/TaxStats-2 page under "Additional Information," there is a direct link under Questions on Tax Statistics? that accesses a page on which you can send an email to the IRS with general questions or comments regarding these statistics. Links are also provided for accessing other information**.**

63. [LO 1.1] *Statistics of Income*

Solution: About SOI, Dissemination Policy, SOI Products and Services, SOI Data Releases, Statistical Methodology, and All Topics

64. [LO 1.1] *Information about the IRS*

Solution: At the bottom of the IRS home page, click on "more" under Learn about the IRS. "The Agency, Its Mission and Statutory Authority" and "Brief History of IRS" appear along with other links including Today's IRS Organization, Strategic Plan and Other References, Open Government Initiative, Contracting Opportunities, and Contact Us.

65. [LO 1.1] *Tax Freedom Day*

Solution: (a) Tax Freedom Day is the specific day in the year that, on average, Americans stop working to pay the government; that is, income to that date all goes to pay taxes; income for the rest of the year belongs to the taxpayer to do with as he or she chooses.

(b) Tax Freedom Day was April 18 in 2013, April 21 in 2014 and April 24 in 2015. Thus, 108 days in 2013 and 111 days in 2014 were worked to pay taxes and 114 days in 2015 will have been worked to pay taxes. This date varies greatly when done on a state-by-state basis.

Identify the Issues

Identify the issues or problems suggested by the following situations. State each issue as a question.

66. [LO 1.5] *Filing Status*
Solution: What is John and Mary's filing status for the current year?

67. [LO 1.5] *Dependent Status*
Solution: Does William qualify as a dependent of his parents?

68. [LO 1.6] *S Corporation Requirements*
Solution: Is the S corporate restriction of no more than 100 shareholders violated when John gives half of his shares to his wife? Will its S election terminate?

69. [LO 1.6] *Disguised Dividend*
Solution: Will all of Clifford's salary be deductible by the corporation as salary or is it possible that a portion of it will be declared a disguised dividend?