# Solutions to Chapter 1 Problem Assignments

Check Your Understanding

1. [LO 1.1] *What is a tax?*

**Solution:** A tax is a required payment to a governmental unit to support its operations that is not related to the value of goods or services the person or business receives. A fine is levied as a result of an unlawful act.

2. [LO 1.1] *Constitutional Authority*

**Solution:** The federal income tax system as we know it today did not begin until 1913 when the 16th Amendment to the U.S. Constitution was ratified. The 16th Amendment gave Congress the power to lay and collect taxes “on income, from whatever source derived,” without the previous requirement that all direct taxes be imposed based on population.

3. [LO 1.1] *Current Tax Code*

**Solution:** The Tax Reform Act of 1986 was so extensive, the Code was renamed the *Internal Revenue Code of 1986*. Any current changes to the tax laws are now amendments to the *Internal Revenue Code of 1986.*

4. [LO 1.1] *Tax Expenditures*

**Solution:** Tax expenditures can take the form of special exclusions, deductions, credits or preferential rates for specific activities. These tax expenditures result in a reduction in the revenue that would be collected under a more comprehensive income tax.

5. [LO 1.1] *SALT*

**Solution:** The practice of state and local taxation is commonly referred to as a SALT practice.

6. [LO 1.1] *Nexus*

**Solution:** Nexus is the necessary type and degree of connection between a business and the state in which it is located for the state to impose a tax on its sales or activities

7. [LO 1.1] *State Income T*ax

**Solution:** Without physical presence within Arizona, the state cannot assess state income tax on Suntan Corporation’s sales made to persons or businesses located within Arizona.

8. [LO 1.1] *Franchise Tax*

**Solution:** A franchise tax is an excise tax based on the right to do business or own property in a state. It is usually determined based on corporate income, however, so would, in effect, simply be another name for an income tax.

9. [LO 1.1] *State Income Allocation*

**Solution:** The three-factor allocation formula uses a percentage of corporate sales, payroll costs, and tangible property allocated to the state.

10. [LO 1.1] *Employment Taxes*

**Solution:** An employee pays the Social Security and Medicare (FICA) tax; the employer also pays an equivalent Social Security and Medicare (FICA) tax, but the employer also may have to pay an unemployment tax.

11. [LO 1.1] *Wealth Taxes*

**Solution:** The most common wealth tax is the real property tax based on the fair market value of property owned by an individual or a business.

12. [LO 1.1] *Intangible Tax*

**Solution:** The intangible tax is levied on intangible property such as receivables, stocks, bonds, and other forms of investment instruments owned by businesses and individuals.

13. [LO 1.1] *Estate and Gift Tax*

**Solution:** Property that is given away during a lifetime that exceeds an annual allowance per donee is subject to a gift tax; however, the lifetime exemption prevents most gifts from being subject to this tax. Once, however, taxable gifts exceed the lifetime exemption, gifts are subject to the gift tax. When the person passes away, the remaining property owned at death (not previously given away) is now subject to the estate tax. Any gift tax exemption not used previously by the decedent is then available as an exemption from the estate tax. Thus, a decedent’s estate escapes taxation unless his or her total lifetime taxable gifts plus taxable transfers at death exceed the lifetime exemption.

14. [LO 1.1] *Consumption vs Income Tax*

**Solution:** A consumption tax is levied on purchases of goods or services that are going to be used or consumed. The most common consumption tax is the sales tax, but the value-added tax is another form used in many countries outside the United States. The income tax is based on the value of money or goods that are received, whether it is spent or saved. An income tax will tax money that is going to be saved rather than spent while the consumption tax only taxes money that is spent. The consumption tax is thought to encourage savings.

15. [LO 1.1] *Wealth Taxes*

**Solution:** A wealth tax is based on the value of wealth that a person has at a particular point in time. The real or personal property taxes are wealth taxes. The wealth transfer tax is based on the value of money or property that is passed on to another person. The estate, gift, and inheritance taxes are wealth transfer taxes.

16. [LO 1.1] Use Taxes

**Solution:** A use tax is a companion tax to a sales tax that is imposed on property to be used in one state but which was purchased in another state to which no sales tax was paid on the purchase.

17. [LO 1.2] *Income Taxes*

**Solution:** Two single persons with taxable income of $306,175 each will pay the same total tax as a married couple with taxable income of $612,350. Above $612,350 the married couple’s rate increases to 37% but each of the single persons does not reach that rate until taxable income is over $510,300.

18. [LO 1.2] *Types of Taxes*

**Solution:** The individual income tax system in the United States is a progressive system; that is, as income increases, the tax rate increases and the person pays a greater percentage of income as a tax. In 2019, a single individual who has $9,000 of taxable income will pay $900 in taxes (10%). In 2019, a single individual who makes $18,000 will pay $1,966 ($970 + .12 ($18,000 - $9,700). $1,966/$18,000 = 10.92%. A regressive tax system imposes a lower tax rate as income increases; that is, a person pays a decreasing percentage of their income in taxes as income increases. The Social Security portion of the FICA tax is a regressive tax; as the taxpayer’s income on which the tax is based exceeds a maximum, the tax is no longer collected and the rate declines. A proportional tax would collect the same percentage of tax on the tax base, regardless of the size of the base. The sales tax is a proportional tax as the same percent tax is collected regardless of the amount spent. Since 2018, the corporate income tax is also a proportional tax.

19. [LO 1.2] *Income Tax Rates*

**Solution:** Individuals have basic tax rates of 10%, 12%, 22%, 24%, 32%, 35%, and 37% that apply to their ordinary income and their interest income. The basic tax rates for their dividend income are 0%, 15%, and 20%. Corporations have no tax-favored incomes so they pay a flat tax rate of 21%.

20. [LO 1.2] *Income Tax Rates*

**Solution:** Individual’s short-term capital gains tax rates are the same as the tax rates on ordinary income. An individual’s long-term capital gains rates are 0%, 15%, and 20%.

21. [LO 1.3] *Canons of Taxation*

**Solution:** The basic idea of equity is that persons with similar incomes will face similar taxes. Thus, individuals each with $200,000 in taxable income will pay the same amount of tax. A tax meets the criterion of economy when the amount of revenue it raises is at an optimum level after the costs of administration and compliance are considered. The canon of certainty would dictate that a taxpayer know with reasonable accuracy the tax consequences of a transaction at the time the transaction takes place. The last canon of convenience states that a convenient tax is one that would be readily determined and paid with little effort.

22. [LO 1.3] *Equity Concepts*

**Solution:** Horizontal equity would require persons with equal incomes pay equal amounts of taxes. Vertical equity would require persons with higher incomes to pay a higher percentage of their income than persons with lower incomes. This is the basis of the U.S. individual tax system.

23. [LO 1.4] *Taxable Persons*

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

24. [LO 1.4] *Gross Income*

**Solution:** The term gross income is an all-inclusive term that includes income from all sources that are not specifically excluded.

25. [LO 1.4] *Basic Tax Model*

**Solution:** The basic elements of the tax model are gross income, less deductions, that equal taxable income or loss. The applicable tax rate is applied to this taxable income to determine the gross tax liability. From this tax credits and prepayments are deducted to determine the tax liability owed or the refund due.

26. [LO 1.4] *Capital Losses*

**Solution:** An individual may deduct up to $3,000 of capital losses in excess of capital gains annually; the excess losses may be carried forward indefinitely to be used in succeeding years. A corporation can only offset capital losses against capital gains; losses are not deductible against other income. Instead the corporation first carries the losses back to the three previous years and then forward for 5 years. Corporate capital losses that cannot be used in this time period are lost.

27. [LO 1.4] *Basic Income Tax Rates*

**Solution:** Individuals have basic tax rates of 10%, 12%, 22%, 24%, 32%, 35%, and 37% that are applied to their ordinary income. A corporation pays a flat tax rate of 21%.

28. [LO 1.4] *Fiduciaries*

**Solution:** Trusts and estates are two fiduciary entities; a trust is established by a grantor who appoints a trustee to manage the assets for the benefit of the trust’s beneficiaries. An estate is an entity that is created on the death of a person that provides management for the assets in the decedent’s estate until they can be distributed to the beneficiaries. A grantor is the person who creates the trust when assets are placed in the trust for the benefit of the beneficiaries. The trustee is the person selected by the grantor to oversee the assets and ensure the trust functions as specified by the grantor. The beneficiary of the trust is the person for whom the trust was established and who is to benefit from the income from the trust or receive assets from the trust.

29. [LO 1.5] *Sole Proprietorships*

**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 and must pay self-employment tax. 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 and general partners are required to pay self-employment tax. 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. Partners pay any taxes owing on the income items but loss is deductible only if a partner has sufficient basis. A partner’s basis begins with his or her investment in the partnership and is increased for the partner’s share of partnership liabilities.

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. Only the managing members of a limited liability company may be subject to self-employment taxes.

30. [LO 1.5] *Corporations*

**Solution:** The principal difference between a C corporation and an S corporation is in the method of taxation. A C 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. S corporation shareholders may be eligible for the 20% qualified business income deduction. There are a number of other differences in that the number and type of S corporation shareholders is limited and it can only have one class of stock outstanding. 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

31. [LO 1.1] *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

32. [LO 1.1] *FICA Tax*

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

33. [LO 1.1] *FICA Taxes*

**Solution:** 10,269.80is withheld for FICA taxes in 2019.

|  |  |
| --- | --- |
| $132,900 x 6.2% = | $8,239.80 |
| $140,000 x 1.45% = | 2,030.00 |
| Total | $10,269.80 |

34. [LO 1.4] *Taxable Income*

**Solution:** Taxable income = $27,800

$40,000 Salary

Less 12,200 Standard deduction

$27,800

Amy’s tax liability is calculated in problem 39.

35. [LO 1.4] *Taxable Income and Tax Liability*

**Solution:** Taxable income = $53,500 Tax liability = $6,208

|  |  |  |
| --- | --- | --- |
|  | $71,000 | Salary |

Plus 1,500 Interest income

Less 19,000 Itemized deductions (greater than $18,350 standard deduction.)

$53,500

Tax Liability. $6,065 + ($53,500 - $52,850) x 22% = $6,208

36. [LO 1.4] *Taxable Income*

**Solution:** Taxable income = $49,000

|  |  |  |
| --- | --- | --- |
|  | $450,000 | Gross receipts |
| minus | 145,000 | Cost of goods sold |
| minus | 276,000 | Business expenses |
| plus | 20,000 | Gain on sale of machinery |
| equals | $49,000 | Taxable income |

The $500 tax-exempt interest on State of New York bonds is excluded from taxable income.

Note that the tax liability is calculated in problem 40.

37. [LO 1.4] *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; it can only offset capital gain.

Note that the tax liability is calculated in problem 41.

38. [LO 1.4] *Taxable Income*

**Solution:** Taxable income = $85,600; Tax Liability = $10,549

|  |  |  |
| --- | --- | --- |
|  | George's salary | $65,000 |
| plus | Mary's salary | 45,000 |
| equals | Gross income | $110,000 |

minus Standard deduction 24,400

equals Taxable Income $ 85,600

The $24,400 standard deduction is greater than their itemized deductions.

Tax Liability = $9,086 + 22% x ($85,600 - $78,950) = $10,549

39. [LO 1.4] *Determining Tax Liability*

**Solution:** $3,142.

[($27,800 taxable income - $9,700) x 12%] + $970 = $3,142.

40. [LO 1.4] *Determining Tax Liability*

**Solution:** Taxable income = $49,000; income tax = $10,290.

Income Tax: $49,000 x 21% = $10,290.

41. [LO 1.4] *Determining Tax Liability*

**Solution:**  $49,875.

$237,500 x 21% = $49,875

(The $20,000 capital loss is not deductible currently; it can only offset capital gain)

42. [LO 1.4] *Marriage Penalty*

**Solution:** Yes,they have a marriage penalty of $1,753 ($197,140 - $195,387).

MFJ: [($700,000 - $612,350) x 37%] + $164,709.50 = $197,140

Single: [($350,000 - $204,100) x 35%] + $46,628.50 = $97,693.50 x 2 = $195,387

43. [LO 1.4] *Joint vs. Single Filing*

**Solution:** a.It will be to their advantage to marry in 2019.

b.By marrying before the end of 2019 and filing jointly, they save $11,044.50 ($52,193.50 - $41,149) in taxes.

MFJ: [($220,000 - $168,400) x 24%] + $28,765 = $41,149

Single: [($220,000 - $204,100) x 35%] + $46,628.50 = $52,193.50

c. If they each have $110,000 of income, they would each pay $20,574.50 (a total of $41,149) in taxes and there would be no marriage penalty.

Tax on $110,000 (Single): [($110,000 - $84,200) x 24%] + $14,382.50 = $20,574.50

$20,574.50 x 2 = $41,149.

44. [LO 1.4] *Taxable Income*

**Solution:** Taxable income = $51,600.

$76,000 salary and wages - $24,400 standard deduction = $51,600 taxable income.They claimed the standard deduction because it is greater than their itemized deductions.

A tax credit reduces the tax liability but does not affect taxable income.

45. [LO 1.4] *Tax Liability*

**Solution:** The estate will pay $5,758.

[$20,000 - $12,750) x 37%] + $3,075.50 = $5,758.

46. [LO 1.5] *Tax Liability*

**Solution:** William’s income is twice John’s, but his taxes are 2.66 ($9,058.50/$3,406) times John’s. This illustrates the progressive nature of the tax system as well as vertical equity.

[($30,000 - $9,700) x 12%] + $970 = $3,406

[($60,000 - $39,475 x 22%] + $4,543 = $9,058.50

47. [LO 1.5] *Determining Tax Liability*

**Solution:** The net tax liability is $14,250.

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

The income tax liability is: $125,000 x 21% = $26,250 gross tax

$26,250 - $12,000 tax credit = $14,250 net tax

48. [LO 1.5] *Determining Tax Liability*

**Solution:** Taxable income = $26,800 and the tax liability is $3,022

|  |  |  |
| --- | --- | --- |
|  | $46,000 | Salary |
| minus | 7,000 | Partnership loss (50% x $14,000) |
| equals | $39,000 | Gross income |
| minus | 12,200 | Standard deduction |
| equals | $26,800 | Taxable income |

Tax: [($26,800 - $9,700) x 12%] + $970 = $3,022

Carolyn’s ending basis in her partnership is $10,000 - $7,000 = $3,000. Whether Carolyn may include all $7,000 of her allocable loss in her gross income calculation depends on if she has sufficient basis. Due to the general partnership operating at a loss, the QBI deduction is not applicable to Carolyn for this tax year.

49. [LO 1.4 & 1.5] *Tax Liability Comparisons*

**Solution:** Partnership: Pays no tax.

Partnership, impact to them personally: June and John each include their share of the first year profits passed through to them in gross income. Prior to calculating taxable income, their adjusted gross income is reduced by the 20% QBI deduction. Thus, when calculating additional taxes paid by them personally, it may be assumed the net inclusion is taxed at their marginal tax rates.

June and John each own 50%, so their share of the profits in the first year is $32,000 (50% x $64,000). The QBI deduction for each of them is $32,000 x 20%, $6,400. Thus, the net inclusion for each is $25,600 ($32,000 - $6,400).

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.) Reviewing the individual income tax formula shows that all deductions, including the greater of the standard or itemized deduction, are subtracted prior to calculating taxable income).

June’s $110,000 of other ordinary taxable income puts her in the 24% marginal tax bracket because her tax filing status is a head of household with taxable income over $84,200 but not over $160,700.

John’s $110,000 of other ordinary taxable income puts him in the 22% marginal tax bracket because his tax filing status is married filing jointly with taxable income over $78,950 but not over $168,400.

When the additional $25,600 income is added to their other $110,000 income, they are still in the same tax bracket.

June’s tax = $25,600 x 24% = $6,144.

John’s tax = $25,600 x 22% = $5,632.

Together they pay a total of $11,776 in taxes if they form a partnership.

As 50% owners, June and John’s basis in their partnership interest at the end of the first year is $67,000, calculated as follows: $20,000 (cash contributed) + $15,000 (share of loan) + $32,000 (share of income).

Note that the QBI deduction has no effect on their basis.

S Corporation: Pays no tax.

S Corporation, impact to them personally: June and John are each taxed on their net inclusion in taxable income at their marginal rates (their share of income passed through to them reduced by their QBI deduction). The calculation is shown above for the partnership and together they pay $11,776 in taxes.

As 50% owners, June and John’s basis in their S corporation stock at the end of the first year is $52,000, calculated as follows: $20,000 (cash contributed) + $32,000 (share of income).

Note that the loan has no impact on their stock basis.

C Corporation: The corporation pays a tax of $13,440

$64,000 x 21%] = $13,440

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

Their basis in the C corporation is the $20,000 cash paid for the stock.

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

50. [LO 1.4 & 1.5] *Tax Liability Comparisons*

**Solution:** Partnership: The answer is the same as problem 49 because June and John are taxed fully on their shares of income whether distributed or not and the partnership pays no tax. Thus, June’s tax is still $6,144 and John’s tax is $5,632 for a total of $11,776 in taxes. They pay no additional tax on the $17,000 distribution. The distribution reduces their basis in their partnership interest to $50,000, calculated as follows: $20,000 (cash contributed) + $15,000 (share of loan) + $32,000 (share of income) - $17,000 (distribution).

S Corporation: The answer is the same as problem 49 because June and John are taxed fully on their shares of income whether distributed or not and the S corporation pays no tax. Thus, June’s tax is still $6,144 and John’s tax is $5,632 for a total of $11,776 in taxes. They pay no additional tax on the $17,000 distribution. The distribution reduces their basis in their S corporation stock to $35,000, calculated as follows: $20,000 (cash contributed) + $32,000 (share of income) - $17,000 (distribution).

C Corporation: The corporation pays the same tax of $13,440 ($64,000 x 21%)]. June and John, however, will now each have to recognize $17,000 of dividend income; Based on their taxable income, both June and John will be taxed at the 15% dividend rate.

June & John’s tax = ($17,000 x 15% = $2,550) x 2 = $5,100.

The total tax for the corporation, June, and John is $18,540 ($13,440 + $5,100).

Their basis in the C corporation is the $20,000 cash paid for the stock. The dividend distribution does not reduce their stock basis.

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

51. [LO 1.4 & 1.5] *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 [$20,000 invested + ($30,000 bank loan x 50%) = $35,000 basis before loss - $22,000 loss = $13,000 ending basis]. June’s and John’s incomes are high enough for them to remain fully in their respective marginal tax rates of 24% and 22%. June benefits from a reduction in taxes of $5,280 ($22,000 x 24%) and John saves $4,840 ($22,000 x 22%) in taxes at his marginal tax rate. The total tax savings for both are $10,120 ($5,280 + $4,840).

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 $20,000 of this loss against their other income this year because their deduction is limited to their basis in their S corporation stock (which is only the cash contributed, it does not include any of the S corporation’s liabilities). Thus, June benefits from a reduction in taxes of $4,800 ($20,000 x 24%) at her marginal tax rate. John reduces his taxes by $4,400 ($20,000 x 22%) at his marginal tax rate. The total tax savings for the current year is $9,200 ($4,800 + $4,400).

Their basis in the S corporation stock at the end of the year is reduced to zero ($20,000 cash contributed - $20,000 loss). They will each carry their excess $2,000 loss forward; these losses can be deducted in a future year when they have sufficient basis.

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.

Their basis in the C corporation is the $20,000 cash paid for the stock.

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

52. [LO 1.4 & 1.5 *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 $90,000 income; it will pay a tax of $7,560 ($36,000 x 21%) on this remaining $36,000 income in year 2.

b**.** (1) Tax savings for first year of partnership: Clara and Charles are each allocated their share of the loss based on their ownership percentage, Clara $16,200 (30% x $54,000) and Charles $37,800 (70% x $54,000). For each of them, the loss is deductible to the extent of their basis in their partnership interest. Clara’s basis is $15,000 [$9,000 investment + (30% x $20,000 loan)], so she may deduct $15,000 of the $16,200 and her tax savings will be $3,600 ($15,000 deductible loss x 24% Clara’s marginal tax rate). Charles’ basis is $35,000 [$21,000 investment + (70% x $20,000 loan)], so he may deduct $35,000 of the $37,800 and his tax savings will be $7,700 ($35,000 deductible loss x 22% Charles’ marginal tax rate). The excess loss is carried forward to until there is sufficient basis.

Partner’s basis computations:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Clara |  | Charles |  |  |
| 9,000 |  | 21,000 |  | Partner's original investment |
| 6,000 |  | 14,000 |  | Partner's share of liabilities ($20,000 x ownership %) |
| 15,000 |  | 35,000 |  | Basis before deducting loss |
| (15,000) |  | (35,000) |  | Deductible loss |
| 0 |  | 0 |  | Basis at end of first year |

Partner’s tax loss:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Clara |  | Charles |  |  |
| 16,200 |  | 37,800 |  | Share of year 1 loss ($54,000 x ownership %) |
| (15,000) |  | (35,000) |  | Deductible year 1 loss (limited to basis) |
| 1,200 |  | 2,800 |  | Excess loss carried forward |
| 3,600 |  | 7,700 |  | Tax savings (deductible loss x marginal tax rate) |

(2) Tax savings for first year of S corporation: Clara and Charles are each allocated their share of the loss based on their ownership percentage, Clara $16,200 (30% x $54,000) and Charles $37,800 (70% x $54,000). They can deduct loss to the extent of the basis in the S corporation stock. Clara’s tax savings will be $2,160 ($9,000 deductible loss x 24%) and Charles’s savings will be $4,620 ($21,000 deductible loss x 22%).

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

S corporation shareholder’s stock basis computations:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Clara |  | Charles |  |  |
| 9,000 |  | 21,000 |  | Shareholder's original investment |
| (9,000) |  | (21,000) |  | Deductible loss |
| 0 |  | 0 |  | Basis at end of first year |
| Shareholder’s tax loss: | | | | | |  |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | Clara |  | Charles |  |  | | 16,200 |  | 37,800 |  | Share of year 1 loss ($54,000 x ownership %) | | (9,000) |  | (21,000) |  | Deductible year 1 loss | | 7,200 |  | 16,800 |  | Excess loss carry forward | | 2,160 |  | 4,620 |  | Tax savings (loss deduction x marginal rate) | | | | | | |  |

(3) First year of C corporation: No effect on Clara or Charles. Their basis in corporate stock remains their original investment, $9,000 for Clara and $21,000 for Charles.

c. (1) Income tax for second year of partnership: Clara and Charles pay income tax on their share of the profits from year 2 reduced by the 20% QBI deduction and the loss carried forward from year 1, at their marginal tax rates. The cash distribution is not taxed, but is a reduction of basis.

Qualified business income consists of the second year profit of $90,000 less the first year loss of $54,000 = $36,000. $10,800 ($36,000 x 30%) is allocated to Clara and $25,200 ($36,000 x 70%) is allocated to Charles. Clara’s QBI deduction is $2,160 ($10,800 share of QBI x 20%) and Charles’s QBI deduction is $5,030 ($25,200 share of QBI x 20%).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Clara |  | Charles |  |  |
| 27,000 |  | 63,000 |  | Share of year 2 profit ($90,000 x ownership %) |
| (2,160) |  | (5,040) |  | QBI deduction |
| 24,840 |  | 57,960 |  | Subtotal |
| (1,200) |  | (2,800) |  | Loss carried forward from year 1 |
| 23,640 |  | 55,160 |  | Subtotal |
| 24% |  | 22% |  | Marginal tax rate |
| 5,673,60 |  | 12,135,20 |  | Year 2 income tax |

Partner’s basis computations:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Clara |  | Charles |  |  |
| 9,000 |  | 21,000 |  | Partner's original investment |
| 6,000 |  | 14,000 |  | Partner's share of liabilities |
| 15,000 |  | 35,000 |  | Basis before deducting loss |
| (15,000) |  | (35,000) |  | Deductible loss |
| 0 |  | 0 |  | Basis at end of first year |
| 27,000 |  | 63,000 |  | Share of year 2 profit ($90,000 x ownership %) |
| (3,000) |  | (7,000) |  | Year 2 cash distribution |
| 24,000 |  | 56,000 |  | Subtotal |
| (1,200) |  | (2,800) |  | Loss carried forward from year 1 |
| 22,800 |  | 53,200 |  | Basis at end of year 2 |

(2) Income tax for second year of S corporation: Clara and Charles pay income tax on their share of the profits from year 2 reduced by the 20% QBI deduction and the loss carried forward from year 1, at their marginal tax rates. The cash distribution is not taxed, but is a reduction of basis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Clara |  | Charles |  |  |
| 27,000 |  | 63,000 |  | Share of year 2 profit |
| (2,160) |  | (5,040) |  | 20% QBI Deduction |
| 24,840 |  | 57,960 |  | Subtotal |
| (7,200) |  | (16,800) |  | Loss carried forward from year 1 |
| 17,640 |  | 41,160 |  | Subtotal |
| 24% |  | 22% |  | Marginal tax rate |
| 4,233.60 |  | 9,055.20 |  | Year 2 income tax |

S corporation shareholder’s stock basis computations:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Clara |  | Charles |  |  |
| 9,000 |  | 21,000 |  | Shareholder’s original investment |
| (9,000) |  | (21,000) |  | Deductible loss |
| 0 |  | 0 |  | Basis at end of first year |
| 27,000 |  | 63,000 |  | Share of year 2 profit |
| (3,000) |  | (7,000) |  | Year 2 cash distribution |
| 24,000 |  | 56,000 |  | Subtotal |
| (7,200) |  | (16,800) |  | Loss carried forward from year 1 |
| 16,800 |  | 39,200 |  | Basis at end of year 2 |

(3) Income tax for second year of C corporation: Clara and Charles pay tax on their dividend income. Clara pays $450 ($3,000 x 15%) and Charles pays $1,050 ($7,000 x 15%). Their basis in the corporate stock remains their original investment, $9,000 for Clara and $21,000 for Charles .

53. [LO 1.5] *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

Develop Planning Skills

54. [LO 1.4] *Single vs. Married Filing Status*

**Solution:**

Married Filing Separately: [($360,000 - $306,175) x 37%] + $82,354.75 = $102,270

$102,270 x 2 = $204,540

Married Filing Jointly: [($720,000 - $612,350) x 37%] + $164,709.50 = $204,540

Single: [($360,000 - $204,100) x 35%] + $46,628.50 = $101,193.50 x 2 = $202,387

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 $2,153 ($204,540 - $202,387) in taxes filing as single individuals this year.

55. [LO 1.4 & 1.5] *Total Tax Comparison*

**Solution:** Based solely on income taxes, Jeremy should not incorporate because his taxes will be $4,779.50 ($9,922 - $5,142.50) higher as a corporation than operating as a sole proprietorship.

Sole Proprietorship: Jeremy will be taxed on the entire net income from the sole proprietorship of $68,000 ($80,000 – $12,000) regardless of the “salary.” Her qualified business income deduction is $13,600 ($68,000 x 20%). $68,000 - $13,600 QBI deduction - $12,200 standard deduction = $42,200 taxable income; [22% x ($42,200 - $39,475)] + $4,543 = $5,142.50 income tax.

Corporation: $80,000 - $12,000 - $30,000 = $38,000 taxable income; $38,000 x 21% = $7,980 corporate income tax. Income tax on Jeremy’s $30,000 salary: Jeremy’s taxable income = $30,000 - $12,200 standard deduction = $17,800. Tax on $17,800 = $970 + [($17,800 - $9,700) x 12%] = $1,942. Total taxes as a corporation = $7,980 + $1,942 = $9,922

Based solely on income taxes, Jeremy should not incorporate because his taxes will be $4,779.50 ($9,922 - $5,142.50) more than operating as a sole proprietorship.

(Note that this problem does not consider the impact of employment taxes.)

56. [LO 1.1, 1.4 & 1.5] *Form of Business Operations: C Corporation vs. S Corporation*

**Solution:** Based on 2019 total taxes only, Carol should make the S corporation election because the total taxes will be $3,912.86 ($26,951.30 - $23,038.34) less than operating as a regular C corporation.

Regular C Corporation: FICA tax on Carol’s $40,000 salary is $3,060 ($40,000 x 7.65%). FUTA = $420 ($7,000 x 6%)

Corporate taxable income = $200,000 - $75,000 - $40,000 salary - $3,060 FICA - $420 FUTA= $81,520.

Income tax on $81,520 = $81,520 x 21% = $17,119.20.

Total corporate taxes = $3.060 + $420 + $17,119.20 = $20,559.20.

Carol’s taxes: Carol also pays $3,060 ($40,000 x 7.65%) in FICA taxes on her salary but she cannot deduct these taxes.

Carol’s taxable income = $40,000 - $12,200 standard deduction = $27,800.

Income tax: ($27,800 - $9700) x 12%] + $970 = $3,142.

Carol’s total taxes = $3,142 + $3,060 = $6,202.

Total taxes = $20,599.20 + $6202 = $26,801.20

S Corporation: FICA tax on Carol’s $40,000 salary is $3,060 ($40,000 x 7.65%). FUTA = $420 ($7,000 x 6%).

The net S corporation income of $81,520 (same as the regular corporation) is passed through to Carol for taxation along with her salary income. Her qualified business income deduction is $16,304 ($81,520 x 20%).

Carol’s taxable income = $40,000 salary + $81,520 corporation income - $16,304 QBI deduction - $12,200 standard deduction = $93,016.

Tax on Carol’s $93,016 taxable income = [($93,016 - $84,200) x 24%] + $14,382.50 = $16,498.34

Carol’s total tax = $16,498.34 + $3,060 = $19,558.34

Total taxes = $19,558.34 + $3,060 +$420 = $23,038.34

Based on 2019 total taxes only, Carol should make the S corporation election because the total taxes will be $3,912.86 ($26,951.30 - $23,038.34) less than 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*.

57. [LO 1.2] *Tax Rates*

**Solution:**

|  |  |  |
| --- | --- | --- |
| Income Tax Rate on salary | Employment Tax Rate | Capital Gains Tax Rate |
| 12% | 7.65% | 0% |
| 24% | 6.2% up to $132,000 and 1.45% on $132,000 | 15% |
| 32% | 6.2% up to $132,900 and 1.45% on $176,000 salary | 15% on $139,000\* |
| 35% | 6.2% up to $132,900; 1.45% on $285,000\* | 15% on the first $149,550 (up to taxable income of $434,550) and 20% on remaining $92,450\* |

\*excluding Medicare surtaxes

58. [LO 1.2] *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.

59. [LO 1.2] *Property Tax*

**Solution:** As an ad valorem tax, a property tax is proportional. If you use another tax 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 have lived in their home a long time and paid off the mortgage. If it had significantly appreciated (with property tax increases), based on a percentage of their 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 would make it somewhat progressive).

60. [LO 1.2] *Flat Tax*

**Solution:** Although the corporate tax rate is now a flat 21%, most students will agree that there will have to be some basic exclusions or deductions to enact a viable flat tax for individuals. Comparisons can also be drawn to the FICA taxes which have been flat over incomes up to the Social Security base amount ($132,900 for 2019), but only the Medicare portion applies above this base amount. 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.

61. [LO 1.3] *Tax Evaluation Using the 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.

62. [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 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.”

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

**Solution:** The interest rate = 5.53%.

The $7,000 interest ($100,000 x 7%) would reduce taxes by $1,470 ($7,000 x 21%). Thus the net interest paid is $5,530 ($7,000 - $1,470). The after-tax interest rate is 5.53% ($5,530/$100,000). Alternatively, this can be calculated directly as 7% (1 - .21) = 5.53%

64. [LO 1.4] *Deductions vs. Credits*

**Solution:** Taxable income = $50,000; marginal tax bracket = 22%. Tax savings from the $4,000 deduction = $880 (22% x $4,000).

Taxable income = $200,000; marginal tax bracket = 32%. Tax savings from the $4,000 deduction = $1,280 (32% 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 website (*[*www.irs.gov*](http://www.irs.gov)*)*.

65. [LO 1.1] *Statistical Information*

**Solution:** 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, and Additional Information.

66. [LO 1.1] *Statistics of Income*

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

67. [LO 1.1] *Volunteer Income Tax Assistance Program*

**Solution:** The Volunteer Income Tax Assistance (VITA) program offers free help to people who generally make $55,000 or less, persons with disabilities, and limited English speaking taxpayers who need assistance in preparing their own tax returns. IRS-certified volunteers provide free basic income tax return preparation.

68. [LO 1.1] *Tax Counseling for the Elderly*

**Solution:** Tax Counseling for the Elderly (TCE) program offers free tax help for all taxpayers, particularly those who are 60 years of age and older, specializing in questions about pensions and retirement-related issues unique to seniors. The IRS-certified volunteers who provide tax counseling are often retired individuals associated with non-profit organizations that receive grants from the IRS.

69. [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 23 in 2017 and April 19 in 2018. Thus, 113 days in 2017 and 109 days in 2018 were 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*.

70. [LO 1.4] *Filing Status*

**Solution:** What is John and Mary’s filing status for the current year?

71. [LO 1.5] *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?

72. [LO 1.5] *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?