## Applications

## ANSWERS

Exercise 2
$0.20 x-0.10 y$ if $20 \%$ of their medical expenses exceeds $10 \%$ of their adjusted gross income. Otherwise, the amount is $\$ 0$.

3e. $97,200 \leq t<97,200$

3f. 95,650 $\leq t<95,700$

1. Jake and Gloria are married, filing jointly. Their taxable income without deductions was $\$ 120,440$. They were able to reduce their total income by $\$ 25,381$ using Form 1040 and Schedule A. How much did they save in tax by claiming these deductions? Use the tax tables in the Appendix and the schedule on page 388. $\$ 6,341.50$
2. The Lupos had $x$ dollars in medical expenses. Medical insurance covered $80 \%$ of these expenses, so they had to pay $20 \%$ of the medical bills. For taxpayers in the Lupos' age bracket, the IRS allows medical and dental expense deductions for the amount that exceeds $10 \%$ of a taxpayer's adjusted gross income. Their adjusted gross income was $y$ dollars. Express the amount they can claim as a medical deduction algebraically. See margin.
3. Determine the tax for each filing status and taxable income amount listed using the tax tables in the Appendix, or using the current tables at www.irs.gov, depending on what your teacher requires.
a. single $\$ 97,642 \$ 20,406$
b. head of household \$95,100 \$18,104
c. married filing jointly $\$ 99,999 \$ 16,581$
d. married filing separately $\$ 99,002 \$ 21,253$
e. Given a taxable income amount $t=\$ 97,226$, express the tax table line that would be used in compound inequality notation. See margin.
f. Given the taxable income amount $t=\$ 95,656$, express the tax table line that would be used in interval notation. See margin.

Schedule Y-1-If your filing status is Married filing jointly or Qualifying widow(er)

| If your taxable income is: <br> Over- | But not over- | The tax is: | of the amount over- |
| :---: | :---: | :---: | :---: |
| \$0 | \$18,450 | -..--...- 10\% | \$0 |
| 18,450 | 74,900 | \$1,845.00 + 15\% | 18,450 |
| 74,900 | 151,200 | 10,312.50 + 25\% | 74,900 |
| 151,200 | 230,450 | 29,387.50 + 28\% | 151,200 |
| 230,450 | 411,500 | $51,577.50+33 \%$ | 230,450 |
| 411,500 | 464,850 | 111,324.00 + 35\% | 411,500 |
| 464,850 | -- | 129,996.50 + 39.6\% | 464,850 |

4. Use Schedule Y-1 to answer the questions below.
a. What is the tax for taxpayers filing jointly with a combined taxable income of $\$ 134,786$ ? $\$$
b. A married couple's tax is approximately $\$ 30,000$. What is their approximate taxable income? \$153,300
5. Let $x$ represent the taxpayer's taxable income and $y$ represent the tax. Express the line of the Section D worksheet below as a linear equation in $y=m x+b$ form. Use interval notation to define the income range on which each of your equations is defined. $y=0.25 x-5,677.50 ; 100,000 \leq x \leq 129,600$

Section D-Use if your filing status is Head of household. Complete the row below that applies to you

| Taxable income. <br> If line 43 is | Enter the amount <br> from line 43 | Multiplication <br> amount | (c) <br> Multiply <br> (a) by (b) | (d) <br> Subtraction <br> amount | Subtract (d) from (c) Enter <br> the result here and on Form <br> 1040, line 44 |
| :---: | :--- | :--- | :--- | :--- | :--- |
| At least $\$ 100,000$ <br> but not over $\$ 129,600$ | $\$$ | $\times 25 \%(0.25)$ | $\$$ | $\$ 5,677.50$ | $\$$ |

6. Von is a single taxpayer. His wages for the year are $\$ 66,200$. The amount withheld for federal taxes was $\$ 9,930$. His bank interest is $\$ 1,200$. Fill out his 1040EZ form. Answers depend on the tax year.
7. Write a piecewise function to represent the tax $y$ for the taxable income interval in Schedule Y-2 below for a taxpayer whose filing status is married filing separately.
8. Ann's W-2 form reported total Medicare wages as $\$ 88,340$. She contributed $\$ 50$ per weekly paycheck to her FSA and \$90 per weekly paycheck to her retirement plan. She received
a 1099 form from her bank for her savings account interest in the amount of $\$ 800$ and a 1099 form from a book publisher for royalties in the amount of $\$ 3,700$. What is Ann's adjusted gross income? See margin.
9. Mike pays $\$ 8,000$ in property taxes, but receives a $28 \%$ tax deduction for it. What is Mike's net expense for property taxes? $\$ 5,760$

Schedule Y-2- If your filing status is Married filing separately

| If your taxable income is: | The tax is: |  |  |
| :---: | :---: | :---: | :---: |
|  | But not over- |  | of the amount over- |
| \$0 | \$9,225 | --..-...- 10\% | \$0 |
| 9,225 | 37,450 | \$933.50 + 15\% | 9,225 |
| 37,450 | 75,600 | 5,156.25 + 25\% | 37,450 |
| 75,600 | 115,225 | 14,693.75 + 28\% | 75,600 |
| 115,225 | 205,750 | 25,788.75 + 33\% | 115,225 |
| 205,750 | 232,425 | $55,662.00+35 \%$ | 205,750 |
| 232,425 | -........ | 64,998.25 + 39.6\% | 232,425 |

## Exercise 8

Answer \$85,560
The answer given here assumes that the taxable amount is under the maximum. This amount could change. If you
10. Identify the error(s) on Rorie's W-2 form at the right. Boxes 1 and 16 should be $\$ 86,100$
For each exercise, complete the indicated forms to find the amount of refund or amount owed. Round all answers to the nearest dollar. Use the tax tables in the Appendix or you can use the most recent completed tax year forms and tables available at www.irs.gov.
11. Katie and Ken are married with three children. The following information was reported on their W-2 forms.
They also received $\$ 924.78$ in interest on bank deposits and $\$ 1,011$ in stock dividends. Fill out Form 1040A for Katie and Ken. Answers depend on the tax year.

2. Connor and Samantha Lamberti are married with three children, Luke, Jamie, and Colby. Their total wages for the year were $\$ 90,114$. The total amount withheld from their paychecks for federal taxes was $\$ 7,209.12$. They received $\$ 1,328$ in bank interest and $\$ 776$ in dividends. Samantha had $\$ 400$ in educational expense deductions.
They have medical insurance. Their itemized deductions are: Medical expenses: prescriptions $\$ 550$, doctors $\$ 1,340$, dentists $\$ 1,761$, eyeglasses $\$ 430$; Taxes: State income tax withheld $\$ 7,108$, real estate tax $\$ 8,219$; Interest paid: home mortgage loan $\$ 6,629$; Contributions: cash $\$ 1,000$; used clothing \$550; old toys $\$ 150$; Casualty and theif loss: Luggage stolen while on vacation $\$ 4,600$; and Unreimbursed employee expenses: union dues $\$ 1,350$; conference cost $\$ 75$.

Complete a current Form 1040 for them, including Schedules A and B. Round all entries to the nearest dollar.
are using current tax information to answer this question, the answer may be different.

## Exercises 6, 11, 12

Answers depend on the tax year. Answers for the most recently completed tax year can be found at www. cengage .com/financial_alg2e. Students should use the tax forms, tables, schedules and worksheets from the most recently completed tax year. These are available at www. irs.gov, and can be downloaded and printed. Students will need access to the tables and schedules on the Internet.

