## **Applications**

- 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.
- 2. The Lerners had *x* dollars in medical expenses. Medical insurance covered 80% of these expenses, so they had to pay 20% of the medical bills. The IRS allows medical and dental expenses deductions for the amount that exceeds 7.5% 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.
- **3.** Determine the tax for each filing status and taxable income amount listed using the tax tables in the Appendix.
  - **a.** single \$97,642
  - b. head of household \$95,100
  - c. married filing jointly \$99,999
  - d. married filing separately \$99,002
  - e. Given a taxable income amount t = \$97,226, express the tax table line that would be used in compound inequality notation.
  - **f.** Given the taxable income amount t = \$95,656, express the tax table line that would be used in interval notation.

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4. Use the table to answer the questions below.

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

If your taxable	our filling states is the	The tax is:	of the amount over—
income is:			
Over-	But not over—		
\$0	\$16,050	10%	\$0
16,050	65,100	\$1,605.00 + 15%	16,050
65,100	131,450	8,962.50 + 25%	65,100
131,450	200,300	25,550.00 + 28%	131,450
200,300	357,700	44,828.00 + 33%	200,300
357,700		96,770.00 + 35%	357,700

- **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?
- **5.** Let x represent the taxpayer's taxable income and y represent the tax. Express the line of the worksheet below as a linear equation in y = mx + b form. Use interval notation to define the income range on which each of your equations is defined.

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

Taxable income. If line 43 is —	(a) Enter the amount from line 43	(b) Multiplication amount	(c) Multiply (a) by (b)	(d) Subtraction amount	Tax Subtract (d) from (c). Enter the result here and on Form 1040, line 44
At least \$100,000 but not over \$112,650	\$	× 25% (.25)	\$	\$ 4,937.50	\$

**6.** Write a piecewise function to represent the tax *y* for the taxable income interval in the schedule below for a taxpayer whose filing status is married filing separately.

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

If your taxable income is:		The tax is:	of the amount over—
Over—	But not over-		
\$0	\$8,025	10%	
8,025	32,550	\$802.50 + 15%	8,025
32,550	65,725	4,481.25 + 25%	32,550
65,725	100,150	12,775.00 + 28%	65,725
100,150	178,850	22,414.00 + 33%	100,150
178,850		48,385.00 + 35%	178,850

- 7. 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?
- **8.** Mike pays \$8,000 in property taxes, but receives a 28% tax deduction for it. What is Mike's net expense for property taxes?

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