

Calculating Gross Pay by Straight and Differential Piecework Schedules

Performance Objective 9-3, Page 268

A piecework pay rate schedule is based on production output, not time. Straight piecework pays the worker a certain amount of pay per unit regardless of quantity. In differential piecework, the rate per unit increases as output quantity goes up.

$$\text{Total gross pay} = \text{Output quantity} \times \text{Rate per unit}$$

Chemical Labs pays its workers \$2.50 per unit of production. What is the gross pay of a worker producing 233 units?

$$\text{Gross pay} = 233 \times 2.50 = \underline{\$582.50}$$

Fortune Manufacturing pays its production workers \$0.54 per unit up to 5,000 units and \$0.67 per unit above 5,000 units. What is the gross pay of an employee who produces 6,500 units?

$$\begin{array}{rcl} 5,000 \times .54 & = & 2,700 \\ 1,500 \times .67 & = & 1,005 \\ \text{Total gross pay} & = & \underline{\$3,705} \end{array}$$

Calculating Gross Pay by Straight and Incremental Commission

Performance Objective 9-4, Page 270

Commission is a method of compensation primarily used to pay employees who sell goods and services. Straight commission is based on a single specified percentage of the sales volume attained. Incremental commission, like differential piecework, is when various levels of sales earn increasing rates of commission.

$$\text{Total gross pay} = \text{Total sales} \times \text{Commission rate}$$

Horizon Products pays 4% straight commission on all sales. What is the gross pay of an employee who sells \$135,000?

$$\text{Gross pay} = 135,000 \times .04 = \underline{\$5,400}$$

Discovery Imports pays incremental commissions of 3.5% on sales up to \$100,000 and 4.5% on all sales greater than \$100,000. What is the gross pay of an employee selling \$164,000?

$$\begin{array}{rcl} 100,000 \times .035 & = & 3,500 \\ 64,000 \times .045 & = & 2,880 \\ \text{Gross pay} & = & \underline{\$6,380} \end{array}$$

Calculating Gross Pay by Salary Plus Commission

Performance Objective 9-4, Page 270

Salary plus commission is a pay schedule whereby the employee receives a guaranteed salary in addition to a commission on sales over a specified amount.

An employee is paid a salary of \$350 per week plus a 2% commission on sales greater than \$8,000. If he sold \$13,400 last week, how much did he earn?

$$\begin{array}{rcl} 350 + 2\%(13,400 - 8,000) & & \\ 350 + .02 \times 5,400 & & \\ 350 + 108 & = & \underline{\$458} \end{array}$$

Calculating Gross Pay with Drawing Accounts

Performance Objective 9-4, Page 270

A drawing account, or draw against commission, is a commission paid in advance of sales and later deducted from the commission earned.

Steve Korb sells for a company that pays $6\frac{1}{2}\%$ commission with a \$600 per month drawing account. If Steve takes the draw and then sells \$16,400 in goods, how much commission is he owed?

$$\begin{array}{rcl} (16,400 \times .065) - 600 & & \\ 1,066 - 600 & = & \underline{\$466} \end{array}$$

Section II: Employee's Payroll Deductions

Topic	Important Concepts	Illustrative Examples									
Computing FICA Taxes, Both Social Security and Medicare Performance Objective 9-5, Page 276	<p>FICA taxes are divided into two categories: social security and Medicare. When employees reach the wage base for the year, they are no longer subject to the tax.</p> <table border="1"> <thead> <tr> <th></th><th>Tax Rate</th><th>Wage Base</th></tr> </thead> <tbody> <tr> <td>Social Security</td><td>6.2%</td><td>\$106,800</td></tr> <tr> <td>Medicare</td><td>1.45%</td><td>no limit</td></tr> </tbody> </table>		Tax Rate	Wage Base	Social Security	6.2%	\$106,800	Medicare	1.45%	no limit	<p>What are the FICA tax withholdings for social security and Medicare for an employee with gross earnings of \$760 per week?</p> $\begin{array}{rcl} \text{Social security} & = & \$760 \times 6.2\% \\ \text{Medicare} & = & \$760 \times 1.45\% \end{array}$
	Tax Rate	Wage Base									
Social Security	6.2%	\$106,800									
Medicare	1.45%	no limit									
Calculating Federal Income Tax Using Percentage Method	<ol style="list-style-type: none"> Multiply one withholding allowance, in Exhibit 9-1, by the number of allowances the employee claims. 	<p>Michelle Wolf is single, earns \$1,800 per week as a loan officer for Bank of America and claims three withholding allowances.</p>									

Topic	Important Concepts	Illustrative Examples
Performance Objective 9-6, Page 278	<ol style="list-style-type: none"> 2. Subtract that amount from the employee's gross earnings to find the income subject to income tax. 3. Determine the amount of tax withheld from the appropriate section of Exhibit 9-2. 	<p>Calculate the amount of federal income tax withheld from Michelle's weekly paycheck.</p> <p>From Exhibit 9-1:</p> $70.19 \times 3 = \$210.57$ <p>Taxable income =</p> $1,800 - 210.57 = \$1,589.43$ <p>From Exhibit 9-2:</p> <p>Withholding tax =</p> $234.60 + 27\%(1,589.43 - 1,302.00)$ $234.60 + .27(287.43)$ $234.60 + 77.61 = \$312.21$
Determining an Employee's Total Withholding for Federal Income Tax, Social Security, and Medicare Using the Combined Wage Bracket Tables Performance Objective 9-7, Page 281	<ol style="list-style-type: none"> 1. Based on marital status and payroll period, choose either Exhibit 9-3 or 9-4. 2. Scan down the left-hand columns until you find the bracket containing the gross pay of the employee. 3. Scan across the row of that wage bracket to the intersection of that employee's "withholding allowances claimed" column. 4. The number in that column on the wage bracket row is the amount of combined withholding tax. 	<p>What amount of combined tax should be withheld from the monthly paycheck of a single employee claiming two withholding allowances and earning \$3,495 per month?</p> <p>Use Exhibit 9-4. Scan down the wage brackets to \$3,480-\$3,520. Scan across to "2" withholding allowances to find the tax. <u>\$607.75.</u></p>

Section III: Employer's Payroll Expenses and Self-Employed Person's Tax Responsibility

Topic	Important Concepts	Illustrative Examples
Computing FICA Tax for Employers Performance Objective 9-8, Page 286	<p>Employers are required to match all FICA tax payments made by each employee.</p>	<p>Last month Midland Services withheld a total of \$3,400 in FICA taxes from employee paychecks. What is the company's FICA liability?</p> <p>The company is responsible for a matching amount withheld from the employees, \$3,400.</p>
Computing Self-Employment Tax Performance Objective 9-8, Page 287	<p>Self-employed persons are responsible for social security and Medicare taxes at twice the rate deducted for employees. Technically, they are the employee and the employer; therefore, they must pay both shares, as follows:</p> <p><i>Social Security</i> $12.4\% (6.2\% \times 2), \text{ wage base } \\$106,800$</p> <p><i>Medicare</i> $2.9\% (1.45\% \times 2), \text{ no limit}$</p>	<p>What are the social security and Medicare taxes due on gross earnings of \$4,260 per month for a self-employed person?</p> <p><i>Social security</i> $\text{Gross earnings} \times 12.4\% =$ $4,260 \times .124 = \\$528.24$</p> <p><i>Medicare</i> $\text{Gross earnings} \times 2.9\% =$ $4,260 \times .029 = \\$123.54$</p>
Computing the Amount of State Unemployment Tax (SUTA) and Federal Unemployment Tax (FUTA) Performance Objective 9-9, Page 288	<p>SUTA and FUTA taxes provide for unemployment compensation to workers who have lost their jobs. These taxes are paid by the employer. The SUTA tax rate is 5.4% of the first \$7,000 of earnings per year by each employee. The FUTA tax rate used in this chapter is 6.2% of the first \$7,000 minus the SUTA tax paid ($6.2\% - 5.4\% = .8\%$).</p>	<p>Trans Lux, Inc., had a total payroll of \$40,000 last month. If none of the employees has reached the \$7,000 wage base, what is the amount of SUTA and FUTA tax due?</p> <p>SUTA = $40,000 \times 5.4\% = \\$2,160$</p> <p>FUTA = $40,000 \times .8\% = \\$320$</p>

Topic	Important Concepts	Illustrative Examples
Calculating Employer's Fringe Benefit Expenses Performance Objective 9-10, Page 289	<p>In addition to compensating employees with a paycheck, most companies offer benefit packages that may include pensions, paid sick days, tuition assistance, and health insurance. Fringe benefits represent a significant expense to employers.</p> <p>Fringe benefit percent = $\frac{\text{Total fringe benefits}}{\text{Gross payroll}}$</p>	<p>Linear Industries employs 48 workers and has a monthly gross payroll of \$120,000. In addition, the company pays 6.8% to a pension fund, 8.7% for health insurance, and \$30 per employee for a stock purchase plan. What are Linear's monthly fringe benefit expenses? What percent of payroll does this represent?</p> $120,000 \times 6.8\% = 8,160$ $120,000 \times 8.7\% = 10,440$ $48 \times \$30 = +1,440$ $\text{Total fringe benefits } \underline{\$20,040}$ $\text{Fringe benefit \%} = \frac{20,040}{120,000} = \underline{16.7\%}$
Calculating Quarterly Estimated Tax for Self-Employed Persons Performance Objective 9-11, Page 290	<p>Each quarter self-employed persons must send to the IRS Form 1040-ES along with a tax payment for social security, Medicare, and income tax.</p> <p>Quarterly estimated tax = $\frac{\text{Social security} + \text{Medicare} + \text{Income tax}}{4}$</p>	<p>Amanda Turner is a self-employed decorator. She estimates her annual net earnings at \$44,000 for the year. Her income tax rate is 10%. What is the amount of her quarterly estimated tax?</p> $44,000 \times .124 = \$5,456 \text{ Social security}$ $44,000 \times .029 = \$1,276 \text{ Medicare}$ $44,000 \times .10 = \$4,400 \text{ Income tax}$ $\text{Quarterly estimated tax} = \frac{5,456 + 1,276 + 4,400}{4}$ $= \frac{11,132}{4} = \underline{2,783}$

TRY IT: EXERCISE SOLUTIONS FOR CHAPTER 9

1. Weekly pay = $\frac{\text{Annual salary}}{50} = \frac{43,500}{52} = \underline{\$836.54}$

Biweekly pay = $\frac{\text{Annual salary}}{26} = \frac{43,500}{26} = \underline{\$1,673.08}$

Semimonthly pay = $\frac{\text{Annual salary}}{24} = \frac{43,500}{24} = \underline{1,812.50}$

Monthly pay = $\frac{\text{Annual salary}}{12} = \frac{43,500}{12} = \underline{\$3,625.00}$

2. Regular pay = Hourly rate \times Regular hours worked
Regular pay = $10.50 \times 40 = \underline{\$420}$

Time-and-a-half pay
= Hourly rate \times Overtime factor \times Hours worked
Time-and-a-half pay = $10.50 \times 1.5 \times 5 = \underline{\$78.75}$

Double time pay
= Hourly rate \times Overtime factor \times Hours worked
Double time pay = $10.50 \times 2 \times 4 = \underline{\$84}$

Total gross pay = Regular pay + Overtime pay
Total gross pay = $420.00 + 78.75 + 84.00 = \underline{\$582.75}$

3. Total gross pay = Output quantity \times Rate per unit
Total gross pay = $950 \times .41 = \underline{\$389.50}$

4. Level pay = Output rate per piece
Gomez: $300 \times .68 = \$204.00$
 $200 \times .79 = 158.00$
 $15 \times .86 = +12.90$
\$374.90 Total gross pay

Clifford: $199 \times .68 = \underline{\$135.32}$ Total gross pay

Maken: $300 \times .68 = \$204.00$
 $148 \times .79 = +116.92$
\$320.92 Total gross pay

Nathan: $300 \times .68 = \$204.00$
 $200 \times .79 = 158.00$
 $250 \times .86 = 215.00$
 $54 \times .94 = +50.76$
\$627.76 Total gross pay

5. Total gross pay = Total sales \times Commission rate
Total gross pay = $233,760 \times .024 = \underline{\$5,610.24}$

6. Level pay = Sales per level \times Commission rate
Level pay = $100,000 \times .017 = \$1,700$
 $84,600 \times .025 = +2,115$
\$,3815

7. Commission = Commission rate \times Sales subject to commission
Commission = $4\%(45,000 - 20,000)$
Commission = $.04 \times 25,000 = \$1,000$

Total gross pay = Salary + Commission
Total gross pay = $1,400 + 1,000 = \underline{\$2,400}$

8. Commission = Total sales \times Commission rate
Commission = $120,000 \times 3.5\% = \$4,200$
Commission owed = Commission - Amount of draw
Commission owed = $4,200 - 2,000 = \underline{\$2,200}$

$$\text{Social security tax} = \text{Gross earnings} \times 6.2\%$$

$$\text{Social security tax} = 5,000 \times .062 = \underline{\$310}$$

$$\text{Medicare tax} = \text{Gross earnings} \times 1.45\%$$

$$\text{Medicare tax} = 5,000 \times .0145 = \underline{\$72.50}$$

$$\text{Earnings subject to tax} = \text{Wage base} - \text{Year-to-date earnings}$$

$$\text{Earnings subject to tax} = 106,800 - 102,300 = \$4,500$$

$$\text{Social security tax} = \text{Earnings subject to tax} \times 6.2\%$$

$$\text{Social security tax} = 4,500 \times .062 = \underline{\$279.00}$$

11. From Exhibit 9-1

$$\text{Withholding allowance} = 1 \text{ allowance} \times \text{Exemptions}$$

$$\text{Withholding allowance} = \$304.17 \times 5 = \underline{\$1,520.85}$$

$$\text{Taxable income} = \text{Gross pay} - \text{Withholding allowance}$$

$$\text{Taxable income} = 3,670.00 - 1,520.85 = \underline{\$2,149.15}$$

From Exhibit 9-2, Table 4(b):

Category \$2,042 to \$6,313

$$\text{Withholding Tax} = 89.60 + 15\% \text{ of amount greater than } \$2,042$$

$$\text{Withholding Tax} = 89.60 + .15(2,149.15 - 2,042.00)$$

$$\text{Withholding Tax} = 89.60 + .15(107.15)$$

$$\text{Withholding Tax} = 89.60 + 16.07 = \underline{\$105.67}$$

12. From Exhibit 9-3

$$\$835 \text{ Weekly, married, 2 allowances} = \underline{\$117.88}$$

13. 12 employees @ \$350

$$\text{Social security} = 350 \times .062 = 21.70$$

$$\text{Medicare} = 350 \times .0145 = 5.08$$

$$\text{Total FICA per employee} = 21.70 + 5.08 = \$26.78$$

$$\text{Total FICA per week} = 26.78 \times 12 \text{ employees} = \$321.36$$

$$\text{Total FICA per quarter} = 321.36 \times 13 \text{ weeks} = \underline{\$4,177.68}$$

6 employees @ \$425

$$\text{Social security} = 425 \times .062 = 26.35$$

$$\text{Medicare} = 425 \times .0145 = 6.16$$

$$\text{Total FICA per employee} = 26.35 + 6.16 = \$32.51$$

$$\text{Total FICA per week} = 32.51 \times 6 \text{ employees} = \$195.06$$

$$\text{Total FICA per quarter} = 195.06 \times 13 \text{ weeks} = \underline{\$2,535.78}$$

Total FICA per quarter:

$$\text{Employees' share} = 4,177.68 + 2,535.78 = \underline{\$6,713.46}$$

$$\text{Employer's share} = 4,177.68 + 2,535.78 = \underline{\$6,713.46}$$

$$14. \text{ Social security} = 60,000 \times .124 = \underline{\$7,440}$$

$$\text{Medicare} = 60,000 \times .029 = \underline{\$1,740}$$

$$15. \text{ SUTA tax} = \text{Gross earnings} \times 5.4\%$$

$$\text{SUTA tax} = 10,000 \times .054 = \underline{\$540}$$

$$\text{FUTA tax} = \text{Gross earnings} \times .8\%$$

$$\text{FUTA tax} = 10,000 \times .008 = \underline{\$80}$$

16. a. Fringe benefits

$$\text{Sick days} = \text{Gross payroll} \times 5\%$$

$$\text{Sick days} = 123,400 \times .05 = \$6,170$$

$$\text{Health insurance} = \text{Gross payroll} \times 8\%$$

$$\text{Health insurance} = 123,400 \times .08 = \$9,872$$

$$\text{Dental insurance} = \text{Number of employees} \times 12.40$$

$$\text{Dental insurance} = 250 \times 12.40 = \$3,100$$

$$\text{Total fringe benefits} = 6,170 + 9,872 + 3,100 = \underline{\$19,142}$$

$$b. \text{ Fringe benefit percent} = \frac{\text{Total fringe benefit}}{\text{Gross payroll}}$$

$$\text{Fringe benefit percent} = \frac{19,142}{123,400} = .155 = \underline{15.5\%}$$

$$c. \text{ Yearly fringe benefits} = \text{Weekly total} \times 52$$

$$\text{Yearly fringe benefits} = 19,142 \times 52 = \underline{\$995,384}$$

$$17. \text{ Social security} = 106,800 \times .124 = \$13,243.20$$

$$\text{Medicare} = 120,000 \times .029 = \$3,480.00$$

$$\text{Income tax} = 120,000 \times .2 = \$24,000.00$$

$$\text{Quarterly estimated tax} = \frac{\text{Social security} + \text{Medicare} + \text{Income tax}}{4}$$

$$\text{Quarterly estimated tax} = \frac{13,243.20 + 3,480.00 + 24,000.00}{4}$$

$$= \frac{40,723.20}{4} = \underline{\$10,180.80}$$

CONCEPT REVIEW

- Gross pay is the amount of earnings before payroll _____ are withheld; net pay is the actual amount of the _____. (9-1)
- Annual salaries are commonly prorated to be paid weekly, biweekly, _____ and _____. (9-1)
- Total gross pay includes regular pay and _____ pay, which according to federal law is for hours worked over _____ hours per week. (9-2)
- When employees are paid on their production output, not hours worked, this is called _____. (9-3)
- To calculate total gross pay for an employee paid on commission, we multiply the total _____ by the commission rate. (9-4)

- A draw against commission is commission paid in _____ of sales and later _____ from the commission earned. (9-4)
- The current employee tax rate for social security is _____ percent of gross earnings; the current tax rate for Medicare is _____ percent of gross earnings. (9-5)
- The 2010 wage base limit for social security was _____. (9-5)
- In addition to social security and Medicare tax withholdings, an employer is also responsible, by federal law, for withholding an appropriate amount of federal _____ tax from each employee's paycheck. (9-6)

10. The combined wage bracket table is based on the _____ status of the employee and the _____ period used. The columns list the combined taxes to be withheld based on the number of withholding _____ claimed. (9-7)
11. Self-employed persons are responsible for social security and Medicare taxes at _____ the rate deducted for employees. This amounts to _____ percent for social security and _____ percent for Medicare. (9-8)

12. For companies with full and timely payments to the state unemployment system, the SUTA tax rate is _____ percent of gross earnings and the FUTA tax rate is _____ percent of gross earnings. (9-9)
13. A plan whereby employees are given a menu of fringe benefits from which to choose is known as the _____ style or _____ benefit program. (9-10)
14. Write the formula for quarterly estimated tax for self-employed persons. (9-11)

ASSESSMENT TEST

- Bill Pearson earns \$2,800 semimonthly as a congressional aide for a senator in the state legislature.
 - How much are his annual gross earnings?
 - If the senator switches pay schedules from semimonthly to biweekly, what will Bill's new gross earnings be per payroll period?
- Barbara Sultan works 40 hours per week as a registered nurse. At the rate of \$31.50 per hour, what are her gross weekly earnings?
- Eric Shotwell's company pays him \$18.92 per hour for regular time up to 40 hours and time-and-a-half for overtime. His time card for Monday through Friday last week had 8.3, 8.8, 7.9, 9.4, and 10.6 hours. What was Eric's total gross pay?



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Registered nurses (RNs) treat patients, educate patients and the public about various medical conditions, and provide advice and emotional support to patients' family members. RNs record patients' medical histories and symptoms, help perform diagnostic tests and analyze results, operate medical machinery, administer treatment and medications, and help with patient follow-up and rehabilitation.

Overall job opportunities for registered nurses are excellent. Employment of registered nurses is expected to grow by 22 percent from 2008 to 2018, much faster than the average for all other occupations. According to the Bureau of Labor Statistics, in 2008, the median annual wages of registered nurses was \$62,450.

- Mitch Anderson is a security guard. He earns \$7.45 per hour for regular time up to 40 hours, time-and-a-half for overtime, and double time for the midnight shift. If Mitch worked 56 hours last week, including 4 on the midnight shift, how much were his gross earnings?
- Fergie Nelson assembles toasters for the Gold Coast Corporation. She is paid on a differential piecework rate of \$2.70 per toaster for the first 160 toasters and \$3.25 for each toaster over 160. If she assembled 229 units last week, how much were her gross earnings?
- You work in the payroll department of Universal Manufacturing. The following piece rate schedule is used for computing earnings for assembly line workers. As an overtime bonus, on Saturdays, each unit produced counts as $1\frac{1}{2}$ units.

1-100	\$2.30
101-150	2.60
151-200	2.80
over 200	3.20

Following Universal Manufacturing employees.

Employee	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Total Units	Gross Earnings
a. Shane	0	32	16	36	27	12		
b. Gonzales	18	26	24	10	13	0		
c. Bethards	26	42	49	51	34	20		

7. Kate Fitzgerald's company pays differential piecework for electronic product manufacturing. Production pay rates for a particular circuit board assembly and soldering are \$18.20 per board for the first 14 boards, \$19.55 each for boards 15–30, \$20.05 each for boards 31–45, and \$20.48 each for boards 46 and up. If Kate assembled and soldered 52 boards last week, what was her total gross pay?

8. Foremost Fish Market pays a straight commission of 18% on gross sales, divided equally among the three employees working the counter. If Foremost sold \$22,350 in seafood last week, how much was each counter employee's total gross pay?

9. Bryan Vincent booked \$431,000 in new sales last month. Commission rates are 1% for the first \$150,000, 1.8% for the next \$200,000, and 2.3% for amounts over \$350,000. What was Bryan's total gross pay?

10. Spencer Morris works in the telemarketing division for a company that pays a salary of \$735 per month plus a commission of $3\frac{1}{2}\%$ of all sales greater than \$15,500. If he sold \$45,900 last month, what was his total gross pay?

11. Bonnie Woodruff is on a 2.1% straight commission with a \$700 drawing account. If she is paid the draw at the beginning of the month and then sells \$142,100 during the month, how much commission is owed to Bonnie?

12. Arturo Muina is the captain on a charter fishing boat. He is paid a salary of \$140 per day. He also averages tips amounting to 12% of the \$475 daily charter rate. Last month during a fishing tournament, Arturo worked 22 days. What were his total gross earnings for the month?

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Regardless of what they sell, **telemarketers** are responsible for initiating telephone sales calls to potential clients, using a prepared selling script. They are usually paid on a commission based on the amount of their sales volume or number of new "leads" they generate.

Solve the following problems using 6.2% up to \$100,000 for social security withholding and 1.45% for Medicare.

13. What are the withholdings for social security and Medicare for an employee with gross earnings of \$725 per week?
14. Dan Dietrich is an executive with Coronado Distributors. His gross earnings are \$9,850 per month.
- What are the withholdings for social security and Medicare for Dan's January paycheck?
 - In what month will his salary reach the social security wage base limit?
 - What are the social security and Medicare tax withholdings for Dan in the month named in part b?

Use the *percentage method* to solve the following.

15. Larry Alison is single, claims one withholding allowance, and earns \$2,450 per month.
- What is the amount of Larry's paycheck after his employer withholds social security, Medicare, and income tax?
 - If Larry gets married and changes to two withholding allowances, what will be the new amount of his paycheck?
 - If he then gets a 15% raise, what is the new amount of his paycheck?

IN THE BUSINESS WORLD

Consider the tax implications of a pay raise. In part c, Larry got a 15% raise, but his total deductions increased by 25.9%! His net pay raise, after taxes, was 13.4%

- Use the *combined wage bracket tables*, Exhibits 9-3 and 9-4, for Exercises 16 and 17.
16. How much combined tax should be withheld from the paycheck of a married employee earning \$910 per week and claiming three withholding allowances?
17. How much combined tax should be withheld from the paycheck of a single employee earning \$4,458 per month and claiming zero withholding allowances?

18. Fran Mallory is married, claims five withholding allowances, and earns \$3,500 per month. In addition to social security, Medicare, and FIT, Fran pays 2.1% state income tax, $\frac{1}{2}\%$ for state disability insurance (both based on gross income), \$43.11 for life insurance, and \$72.30 to the credit union. As payroll manager for Fran's company, calculate her net take-home pay per month.

19. Vanguard Fabricators has 83 employees on the assembly line, each with gross earnings of \$329 per week.

- a. What are the total social security and Medicare taxes that should be withheld from the employee paychecks each week?
- b. At the end of the first quarter (13 weeks), what are the accumulated totals of the employee's share and the *matching* taxes for FICA that Vanguard had sent to the IRS?

20. Paul Warren is a self-employed mechanic. Last year he had total gross earnings of \$44,260. What are Paul's quarterly social security and Medicare payments due to the IRS?

21. Tim Ries earns \$48,320 annually as a supervisor for the Lakeside Bank.

- a. If the SUTA tax rate is 5.4% of the first \$7,000 earned in a year, how much SUTA tax must the bank pay each year for Tim?
- b. If the FUTA tax rate is 6.2% of the first \$7,000 earned in a year minus the SUTA tax paid, how much FUTA tax must the bank pay each year for Tim?

22. Universal Exporting has three warehouse employees: John Abner earns \$422 per week, Anne Clark earns \$510 per week, and Todd Corbin earns \$695 per week. The company's SUTA tax rate is 5.4%, and the FUTA rate is 6.2% minus the SUTA. As usual, these taxes are paid on the first \$7,000 of each employee's earnings.

- a. How much SUTA and FUTA tax did the company pay on these employees in the first quarter of the year?
- b. How much SUTA and FUTA tax did Universal pay in the second quarter of the year?

23. Sky High Crane Company employs 150 workers and has a gross payroll of \$282,100 per week. Fringe benefits are 6.1% of gross payroll for sick days and holiday leave, 9.1% for health and hospital insurance, 4.6% for the retirement fund, and \$10.70 per employee per week for a stock purchase plan.

a. What is the total weekly cost of fringe benefits for the company?

b. What percent of payroll does this represent?

c. What is the company's annual cost of fringe benefits?

24. Ransford Alda is a self-employed security consultant with estimated annual earnings of \$90,000. His social security tax rate is 12.4%, Medicare is 2.9%, and his federal income tax rate is 14%.

a. How much estimated tax must Ransford send to the IRS each quarter?

b. What form should he use?

BUSINESS DECISION: THE BRIDE, THE GROOM, AND THE TAX MAN

25. Two of your friends, Chuck and Joan, have been dating for a year. Chuck earns \$3,000 per month as the manager of an Aeropostale store. Joan is a sophomore in college and is not currently working. They plan to marry but cannot decide whether to get married now or wait a year or two.

After studying the payroll chapter in your business math class, you inform Chuck that married couples generally pay less income taxes and that if they got married now instead of waiting, he would have less income tax withheld from his paychecks. Chuck's current tax filing status is single, one exemption. If he and Joan got married, he could file as married, two exemptions. Use the percentage method and Exhibits 9-1 and 9-2 to calculate the following:

a. How much income tax is withheld from Chuck's paycheck each month now?

b. How much income tax would be withheld from Chuck's check if he and Joan got married?

COLLA

Researching

- As a team, collect data on the following:
Weekend edition
paid by salary.
a. How much
b. What pay
c. What fringe
- As a team, research the following findings to the class:
a. Starting salary
b. Personal and state comparison
c. Starting salary

- c. Assuming Joan has three more years of full-time college before going to work and Chuck expects a 10% raise in one year and a 15% raise the year after, what is the total three-year tax advantage of their getting married now?

COLLABORATIVE LEARNING ACTIVITY

Researching the Job Market

1. As a team, collect "Help Wanted" ads from the classified section of your local newspaper. (Note: Weekend editions are usually the most comprehensive.) Find examples of various jobs that are paid by salary, hourly rate, piece rate, and commission. Answer the following for similar jobs.
 - a. How much do they pay?
 - b. What pay periods are used?
 - c. What fringe benefits are being offered?
2. As a team, research the Internet or library for the following payroll information. Present your findings to the class. List your sources for the answers.
 - a. Starting salaries of employees in various industries and in government occupations.
 - b. Personal and household income by area of the country or by state. How does your area or state compare?
 - c. Starting salaries by amount of education for various professions.