## chapter I2 Payroll Accounting

## What You'll Learn

1. Explain the importance of accurate payroll records.
2. Compute gross pay using different methods.
3. Explain and compute employee-paid withholdings.
4. Compute net pay.
5. Prepare payroll registers.
6. Explain the methods of distributing payroll funds.
7. Prepare an employee's earnings record.
8. Define the accounting terms introduced in this chapter.

## Why It's Important

Tax and labor laws protect the rights of both the employee and the employer.


## Before

You

## READ

## Predict

1. What does the chapter title tell you?
2. What do you already know about this subject from personal experience?
3. What have you learned about this in the earlier chapters?
4. What gaps exist in your knowledge of this subject?

## Exploring the Real World of Business

## MOVING INTO THE WORKFORCE

## Symantec Corporation

Since 1982 Symantec Corporation has designed programs to help users manage and protect their computer systems and files. Under John Thompson, CEO since 1999, Symantec has become a market leader with $\$ 1$ billion in annual revenue.

Symantec believes in treating its employees right. It has one of the lowest employee loss rates in the United States. From software engineers to accountants, more than 5,000 employees deliver award-winning products and services.

CEO Thompson believes employees stay at Symantec because the work is challenging and morale is high. The long list of benefits-health-care plans, educational assistance, retirement plans, performance bonuses, and stock options-are just a few perks that keep employees happy.

## What Do You Think?

Describe the kind of company culture and benefits that would make you happy in a job.


## section 1 Calculating Gross Earnings

$\underset{\substack{\text { Bifore } \\ \text { You }}}{ }$ READ
Main Idea
Gross earnings is the total amount an employee earns in a pay period.

## Read to Learn...

$>$ the two main functions of a payroll system. (p. 310)
$>$ the different methods of computing gross pay. (p. 311)

Key Terms
payroll
pay period
payroll clerk
gross earnings
salary
wage
time card
electronic badge readers
commission
piece rate
overtime rate

In a private enterprise economy, people are free to work for any business they choose-as long as they meet the requirements for employment. Employers such as Ford Motor Company, Pier 1, and Symantec Corporation rely on their employees to operate the business and pay their employees for the services they perform. In paying their employees, businesses follow certain guidelines. For example, both federal and state laws require businesses to keep accurate payroll records and to report employees' earnings.

Most companies set up a payroll system to ensure that their employees are paid on time and that payroll checks are accurate. In this chapter you will learn about the payroll system.

## Using a Payroll System What Is a Payroll System?

A payroll is a list of the employees and the payments due to each employee for a specific pay period. A pay period is the amount of time over which an employee is paid. Most businesses use weekly, biweekly (every two weeks), semimonthly (twice a month), or monthly pay periods.

The payroll expense is a major expense for most companies. To compute salary expenses, most businesses set up a payroll system for recording and reporting employee earnings information. A well-designed payroll system achieves two goals:

1. The collection and processing of all information needed to prepare and issue payroll checks.
2. The generation of payroll records needed for accounting purposes and for reporting to government agencies, management, and others.

Businesses with many employees often hire a payroll clerk. The payroll clerk responsible for preparing the payroll

- makes sure employees are paid on time,
- makes sure each employee is paid the correct amount,
- completes payroll records,
- submits payroll reports, and
- pays payroll taxes.

All payroll systems have certain tasks in common, as shown in Figure 12-1.


## Computing Gross Pay

Figure 12-1 The Payroll System

## How Do You Calculate Gross Earnings?

Most employees are paid for the specific amount of time they work during a pay period. The total amount of money an employee earns in a pay period is the employee's gross earnings, or gross pay. The gross earnings expense is sometimes called salary expense. The method used to compute gross pay depends on the basis on which an employee is paid. Employees can be grouped into different pay categories:

- salary
- salary plus commission or bonus
- hourly wage
- commission
- piece rate

Some employees are entitled to overtime pay. Let's look at each method of paying employees.

## Salary

One common method of paying employees, especially those who are managers or supervisors, is by salary. A salary is a fixed amount of money paid to an employee for each pay period. In other words, an employee who is paid a salary earns the same amount regardless of the number of hours worked during the pay period. For example, Paula Ferguson, an administrative assistant, is paid a salary of $\$ 2,000$ a month. Her gross earnings are $\$ 2,000$ for each monthly pay period. Paula may work 160 hours in one month and 170 hours in the next, but her gross earnings for each of the two months are the same- $\$ 2,000$.

Gross In accounting gross does not have a negative meaning. The term gross refers to an amount before anything is deducted or subtracted.

## Hourly Wage

Another common way of paying employees is the hourly wage. A wage is an amount of money paid to an employee at a specified rate per hour worked. The number of hours worked multiplied by the hourly wage equals the gross earnings for the pay period. For example, Emily Kardos, a delivery driver for Roadrunner, is paid $\$ 6.75$ per hour. During the last weekly pay period, she worked 36 hours. Emily's gross earnings are $\$ 243.00$ ( 36 hours $\times \$ 6.75$ ).

Many employees are required to use time cards to accurately record their work hours during each pay period. A time card is a record of the times an employee arrives at work and leaves each day. The times may be recorded manually or by a time clock. The time card also shows the total hours worked each day. Figure 12-2 shows a manual time card.

Many businesses divide an hour into four 15-minute quar-

| soc. SEC. no. 201-XX-XXXX |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WEEK ENDING 6/30/20-- |  |  |  |  |  |  |  |
| DAY | N | OUT | in | OUT | in | OUT | total |
| M | 7:58 | 12:25 | 1:32 | 4:18 |  |  | $71 / 4$ |
| T | 8:00 | 12:00 1 | 12:45 | 4:00 |  |  | $71 / 4$ |
| w | 7:56 | 12:01 | 1:10 | 4:15 |  |  | 7 |
| Th | 8:01 | 11:55 | 1:02 | 4:16 |  |  | $71 / 4$ |
| F | 7:45 | 12:02 | 1:05 | 3:58 |  |  | $71 / 4$ |
| s |  |  |  |  |  |  |  |
| s |  |  |  |  |  |  |  |
|  |  |  |  |  | оtal hou | URS | 36 |
|  |  |  |  | OURS | RATE |  | Amount |
|  |  | regular |  | 36 | \$6.75 |  | \$243.00 |
|  |  | overtime |  | 0 |  |  |  |
|  |  |  |  | total ea | rnings |  | \$243.00 |
| signature Emily Kardos date_6/30/20-- |  |  |  |  |  |  |  |

Figure 12-2 An Employee Time Card ters to measure employee work time. These quarter hours are determined as follows:

## Quarter Hour

On the hour
15 minutes after the hour
30 minutes after the hour
45 minutes after the hour

Example
2:00 p.m.
2:15 p.m.
2:30 p.m.
2:45 p.m.
Employees seldom arrive and leave exactly on the quarter hour. As a result, some companies round arrival and departure times to the nearest quarter hour. Employees, therefore, are paid for working to the nearest quarter hour. Look at Figure 12-2. The times appearing on the time card for Emily Kardos for Monday will be rounded to the nearest quarter hour as follows:

Actual Time Recorded
7:58 a.m.
12:25 p.m. 1:32 p.m. 4:18 p.m.

Nearest Quarter Hour
8:00 a.m.
12:30 p.m.
1:30 p.m.
4:15 p.m.
Emily will be paid for working on Monday from 8:00 a.m. to $12: 30$ p.m. ( $41 / 2$ hours) and from 1:30 p.m. to $4: 15$ p.m. ( $23 / 4$ hours) for a total of $71 / 4$ hours.

Some businesses use computer technology to track employee arrival and departure times. One method uses electronic badge readers. The employee has an identification badge with a magnetic strip that contains employee information. The employee inserts the identification badge into a reader, which scans the magnetic strip and transfers the following information directly to the computer: the employee's name, the department or area where the employee works, and the arrival or departure time. This electronic equipment makes it fast and easy to prepare a daily printout of employee work hours.

Regardless of how employee work hours are recorded (manually, time clock, or electronic reader), business owners and supervisors check the accuracy of the hours reported and analyze the labor costs for every pay period.

## Commission

A commission is an amount paid to an employee based on a percentage of the employee's sales. Sales employees are often paid a commission to encourage them to increase their sales. For example, Joyce Torrez is paid a $5 \%$ commission on all her sales. Last week Joyce's total sales were $\$ 8,254$. Joyce's gross earnings for the week are $\$ 412.70$ (\$8,254 $\times .05$ ).

## Salary Plus Commission or Bonus

Some salespeople earn a base salary plus a com-
 mission or a bonus on the amount of their sales. For example, Juan Espito, who works at a car stereo shop, is paid a salary of \$200 per week plus a commission of $3 \%$ of his sales. Juan's sales were $\$ 4,810$ last week. His gross earnings are $\$ 344.30[\$ 200+(\$ 4,810 \times .03)]$.

## Piece Rate

Some manufacturing companies pay employees a specific amount of money for each item the employee produces. This method of payment is called piece rate. Businesses often pay a low hourly rate in addition to the piece rate.

## Overtime Pay

State and federal laws regulate the number of hours some employees may work in a week. Generally, employers are required to pay overtime when employees covered by these laws work more than 40 hours per week. The overtime rate, set by the Fair Labor Standards Act of 1938, is $11 / 2(1.5)$ times the employee's regular hourly pay rate. For example, Jesse Dubow, a photo-lab clerk at Fast Photo, worked 43 hours last week. Jesse's hourly rate of pay is $\$ 6.60$. His hourly overtime rate is $\$ 9.90(\$ 6.60 \times 1.5)$. His gross earnings for the week are $\$ 293.70$ determined as follows:

|  | Hours |  | Rate |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Regular | 40 | $\times$ | $\$ 6.60$ | $=$ | $\$ 264.00$ |
| Overtime | 3 | $\times$ | $\$ 9.90$ | $=$ | $\frac{29.70}{}$ |
| Total |  |  |  |  |  |
|  |  |  |  |  |  |

Some employees who are paid a salary are also entitled to overtime pay.

In Your Experience
Pay Categories If you or your friends have parttime jobs, what is the pay category? If a salaried employee is paid overtime, the salary is converted to an hourly rate using a standard number of hours for the period covered by the salary. Then the hourly overtime rate is calculated. For example, Jim Halley's salary is $\$ 600$ per week. His hourly rate is $\$ 15$ assuming a standard 40 -hour work week $(\$ 600 \div 40)$. His hourly overtime rate is $\$ 22.50(\$ 15 \times 1.5)$. Jim's gross earnings for a 44 -hour week are $\$ 690$, determined as follows:

Hours Rate

| Regular |  | $=$ |
| :--- | :--- | :--- |
| Overtime | $\$ 600.00$ |  |
| Total |  |  |

## section I <br> Assessment

## Aftir

You

## READ

## Reinforce the Main Idea

Create a table similar to this one. For each category of employee, list the source of information for calculating gross earnings in a single pay period.

| Method | Source of Information |
| :--- | :--- |
| Salary |  |
| Hourly Wage |  |
| Commission |  |
| Salary plus Commission |  |

## Do the Math

You have been interviewing with several financial consulting firms for entry-level management positions, and you received two job offers. One company, Bryson Consulting, offers you a starting salary of $\$ 30,000$ with a $2 \%$ bonus (on salary) if you can bring 10 new clients into the firm. The other company, The Patterson Group, offers a salary of $\$ 25,000$ plus a $3 \%$ commission on all new client billings. If you bring 10 new clients to Bryson, what would the amount of your bonus be? How much in new business would you have to bring to Patterson to equal the bonus from Bryson? Which offer seems to have the higher earnings potential? Why?

## Problem 12-1 Calculating Gross Earnings

Cleary's Music Center has nine employees. The employees are paid weekly with overtime after 40 hours per week. The overtime rate is $11 / 2$ times the regular rate of pay. Payroll information for the week ending June 12 follows:

| Employee | Pay Rate | Hours |
| :--- | :---: | :---: |
| David Clune | $\$ 6.95$ | $33^{1 ⁄ 2} 2$ |
| Richard Lang | $\$ 7.80$ | 38 |
| Jane Longas | $\$ 7.25$ | 43 |
| Betty Quinn | $\$ 8.30$ | $44^{11 / 4}$ |
| John Sullivan | $\$ 8.30$ | $391 / 2$ |
| Kelly Talbert | $\$ 7.50$ | 40 |
| Gene Trimbell | $\$ 9.75$ | $42^{11 / 2}$ |
| Heidi Varney | $\$ 8.75$ | $34^{11 / 4}$ |
| Kevin Wallace | $\$ 9.25$ | 46 |

Instructions Prepare a form similar to the one that follows. Calculate regular earnings, overtime earnings, and gross earnings for each employee.

| Employee | Total <br> Hours | Pay <br> Rate | Regular <br> Earnings | Overtime <br> Earnings | Gross <br> Earnings |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Clune, David | $331 / 2$ | $\$ 6.95$ | $\$ 232.83$ | $-0-$ | $\$ 232.83$ |

## section 2 <br> Payroll Deductions

Whether you work at Target, McDonald's, or CompUSA, your earnings and deductions are determined in the same way. In this section you will compute the amounts withheld from an employee's earnings.

The first time you received a payroll check, you were probably surprised that its amount was less than you expected. Various amounts had been taken out of your gross earnings. An amount subtracted from gross earnings is a deduction. Deductions include those required by law and those an employee wishes to have withheld from earnings.

## Deductions Required by Law

## What Amounts Must Be Deducted from Earnings?

An employer is required by law to withhold payroll taxes. These taxes include the federal income tax and the social security tax. In addition, employers often must withhold city and state income tax.

## Federal Income Tax

Most people pay the federal government a tax based on their annual income. To ensure that employees have the funds to pay their income taxes, employers are required to withhold a certain amount of money from each payroll check. The employer acts as a collection agent and sends the money withheld to the federal government.

The amount of income tax withheld is based on the estimated income tax the employee will actually owe. The exact income tax amount is determined when the employee prepares an income tax return. If too much money was withheld, the Internal Revenue Service (IRS) refunds the overpayment. If too little money was withheld, the employee pays the amount due when the income tax return is filed. To avoid penalties, an employee should have at least $90 \%$ of the actual tax liability deducted.

Form W-4. The federal income tax amount withheld depends on three factors: (1) the employee's marital status, (2) the number of allowances the employee claims, and (3) the employee's gross earnings. The first two items are found on Form W-4, the Employee's Withholding Allowance Certificate. Each employee fills out a Form W-4 when starting a job and files a revised Form W-4 if the marital status or number of allowances changes. Employers keep a current Form W-4 on file for each employee.

Figure 12-3 on page 316 shows the completed Form W-4 for Emily Kardos. The Form W-4 includes the employee's name, address, social security number, and marital status. The employee also lists the number of allowances claimed (refer to line 4). A withholding allowance reduces the amount of

## Main Idea

Payroll deductions are amounts withheld from an employee's gross earnings.

## Read to Learn...

$>$ the deductions required by law. (p. 315)
$>$ the deductions an employee can choose. (p. 318)

Key Terms deduction withholding allowance 401 (k) plan


Figure 12-3 Employee's Withholding Allowance Certificate-Form W-4
income tax to be withheld. The more allowances a taxpayer claims, the lower the amount of income tax withheld from earnings. A taxpayer is usually allowed one personal allowance and one allowance for each person he or she supports (such as a child).

Some employees are exempt from federal income tax withholding. An employee is not required to have income tax withheld if he or she

- did not have a federal income tax liability in the previous year,
- expects no tax liability this year,
- has income of $\$ 700$ or less including nonwage income such as savings account interest, and
- cannot be claimed as a dependent on someone else's tax return.

An exempt employee writes EXEMPT on Form W-4 so the employer will know not to withhold federal income tax.

Tax Tables. An employee's gross earnings affect the amount withheld for federal income taxes. Most employers use IRS tables to determine the amount of federal tax to withhold. See Figure 12-4 for tables for single and married persons paid weekly. Other tax tables are available.

Let's use the tables to determine the tax withheld for Emily Kardos. She is single and claims no allowances. For the week ending June 30, she earned $\$ 243$. This amount falls between $\$ 240$ and $\$ 250$ on the tax table for single persons. Reading across this line to the column for zero withholding allowances, you find that $\$ 29$ is withheld from Emily's gross earnings.

## Social Security Tax

Employers also collect social security taxes for the federal government. Established by the Federal Insurance Contributions Act (FICA) in 1935, social security taxes are often called FICA taxes. FICA taxes have two components: social security and Medicare. Each is listed separately on payroll records. The social security tax funds programs that provide income to certain individuals:

1. The old-age and disability insurance programs provide income to people who are retired or disabled and their dependent children.
2. The survivors' benefits program provides income to the spouse and dependent children of a deceased worker.
The Medicare tax finances health insurance benefits for people who are elderly or disabled.

SINGLE Persons-WEEKLY Payroll Period

| If the wages are - |  | And the number of withholding allowances claimed is - |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| At least | But less than | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| The amount of income tax to be withheld is - |  |  |  |  |  |  |  |  |  |  |  |  |
| \$0 | \$55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| 55 | ${ }_{60}$ | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60 | 65 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 65 | 70 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 70 | 75 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 75 | 80 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 80 | 85 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 85 | 90 95 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90 95 | r95 | 6 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100 | 105 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 105 | 110 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 110 | 115 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 115 | 120 | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 120 | 125 | 11 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 125 | 130 | 11 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 130 | 135 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 135 | 140 | 13 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 140 | 145 | 14 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 145 | 150 | 14 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150 | 155 | 15 | 8 |  |  | 0 |  |  |  |  |  | 0 |
| 155 | 160 | 16 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 160 | 165 | 17 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 165 170 | 170 175 | 17 18 | 10 11 | 2 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 175 | 180 | 19 | 11 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180 | 185 | 20 | 12 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 185 190 | 190 195 | 20 21 | 13 14 | 5 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 190 195 | 195 200 | 21 | 14 14 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200 | 210 | 23 | 15 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 210 | 220 | 25 | 17 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 220 | 230 | 26 | 18 | 11 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 230 | 240 | 28 | 20 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 240 | 250 | 29 | 21 | 14 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250 | 260 | 31 | 23 | 15 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 260 | 270 | 32 | 24 | 17 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 270 | 280 | 34 | 26 | 18 | 11 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 280 | 290 | 35 | 27 | 20 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 290 | 300 | 37 | 29 | 21 | 14 | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300 | 310 | 38 | 30 | 23 | 15 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| 310 | 320 | 40 | 32 | 24 | 17 | 9 | 1 | 0 | 0 | 0 | 0 | 0 |
| 320 | 330 | 41 | 33 | 26 | 18 | 11 | 3 | 0 | 0 | 0 | 0 | 0 |
| 330 340 | 340 350 | 43 | 35 | 27 | 20 | 12 | 4 | 0 | 0 | 0 | 0 | 0 |
| 340 | 350 | 44 | 36 | 29 | 21 | 14 | 6 | 0 | 0 | 0 | 0 | 0 |

MARRIED Persons-WEEKLY Payroll Period

| If the wages are - |  | And the number of withholding allowances claimed is - |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| At least | But less than | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| \| The amount of income tax to be withheld is - |  |  |  |  |  |  |  |  |  |  |  |  |
| \$0 | \$125 |  |  |  |  |  |  |  |  |  |  |  |
| +\$0 | $\$ 125$ 130 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 130 | 135 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 135 | 140 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 140 | 145 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 145 | 150 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150 | 155 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 155 | 160 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 160 | 165 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 165 | 170 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 170 | 175 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 175 | 180 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180 | 185 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 185 | 190 | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 190 | 195 | 10 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 195 | 200 | 11 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200 | 210 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 210 | 220 | 14 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 220 | 230 | 15 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 230 | 240 | 17 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 240 | 250 | 18 | 11 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250 | 260 | 20 | 12 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 260 | 270 | 21 | 14 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 270 | 280 | 23 | 15 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 280 | 290 | 24 | 17 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 290 | 300 | 26 | 18 | 10 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300 | 310 | 27 | 20 | 12 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 310 | 320 | 29 | 21 | 13 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 320 | 330 | 30 | 23 | 15 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 330 | 340 | 32 | 24 | 16 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

Figure 12-4 Internal Revenue Service Tax Tables


## As <br> You <br> Key Point

Form W-4 The Form W-4 indicates whether the employee is single or married. It also shows the number of withholding allowances.


FICA Taxes
Social security tax: 6.2\%
(.062) of annual gross
earnings up to \$90,000.
Medicare tax: 1.45\%
(.0145) of total annual
gross earnings.

Deductions What are the similarities between legally required deductions and voluntary deductions? What are the differences?

The FICA taxes are exact taxes in that, unlike the federal income tax, they do not involve estimation and are not affected by allowances or marital status. Congress sets FICA tax rates and can change them at any time. Most employees are subject to FICA taxes, even those who are exempt from federal income taxes. The FICA tax rates are as follows:

| Social security tax | $6.20 \%$ |
| :--- | :--- |
| Medicare tax | $\underline{1.45 \%}$ |
| Total FICA taxes | $7.65 \%$ |

The social security tax is deducted from the employee's earnings until the maximum taxable earnings amount for the year is reached. This amount increases each year. For 2005, the maximum taxable earnings amount was $\$ 90,000$. The maximum amount of social security tax that could be withheld from an employee in that year was $\$ 5,580.00(\$ 90,000 \times .062)$. There is no maximum taxable earnings amount for the Medicare tax. For example, Lisa Gus earns $\$ 93,000$ per year as a manager at a CPA firm. She has $\$ 6,928.50$ in FICA taxes withheld from her earnings:

## Earnings

|  | Subject to Tax |  | Tax Rate |  | Tax |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Social security tax | $\$ 90,000$ | $\times$ | .062 | $=$ | $\$ 5,580.00$ |
| Medicare tax | 93,000 | $\times$ | .0145 | $=$ | $\frac{1,348.50}{}$ |
| Total withheld |  |  |  |  | $\$ 6,928.50$ |

## State and Local Income Taxes

Most states and some cities tax the earnings of the people who live or work within their boundaries. Sometimes the withholdings are a percentage of gross earnings, like social security taxes. Amounts to be deducted also can be determined by tables similar to the ones for federal income tax.

## Voluntary Deductions

## What Deductions Can an Employee Choose?

Most employers agree to deduct other amounts from their employees' payroll check at the request of the employees. These deductions are withheld from each payroll check until the employee notifies the employer to stop. Voluntary employee deductions include union dues, health insurance payments, life insurance payments, pension and other retirement contributions, credit union deposits and payments, U.S. savings bonds, and charitable contributions.

The $\mathbf{4 0 1 ( k )}$ plan is a popular voluntary payroll deduction. The employee does not pay income tax on earnings contributed to the 401(k) plan until the money is withdrawn from the plan, usually after age $59 \frac{1}{2}$. In other words, taxable income is reduced by the amount of the contribution. Some employers make matching contributions to employees' 401(k) accounts.

Angelo Cappelli, a graphic artist, earns $\$ 644$ each week and contributes $\$ 75$ to his 401(k) account. Angelo will pay income tax on $\$ 569$ ( $\$ 644-$ $\$ 75$ ). He will not pay income tax on his $\$ 75$ contribution until he withdraws it from his $401(\mathrm{k})$ account.

## SECTIGN 2 Assessment

## After

You

## Reinforce the Main Idea

Use an organizer like this one
to list one major advantage
and one major disadvantage,
from the employee's point
of view, for each type of
deduction. Add as many
answer rows as needed.

| Legally Required |  |  | Voluntary |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Type | Advantage | Disadvantage | Type | Advantage | Disadvantage |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

## 48

## Do the Math

As the president of Creative Craft Memory Books, you have decided to add five new sales consultants to your sales force. You offer these sales consultants a gross salary of $\$ 23,000$ each, but the consultants will not take home $\$ 23,000$. Calculate the FICA taxes to be withheld from each consultant's gross pay. What remains of their gross pay after you deduct FICA taxes?

## Problem 12-2 Determining Taxes on Gross Earnings

Information related to the just-completed pay period of MegaCom Computer Upgrades is provided in the following chart. Determine the amounts to be withheld from each employee's gross earnings for FICA and income taxes. It is a weekly pay period, so use the tables on page 317 to determine the amount of federal income tax to be withheld. The state income tax is $2 \%$ of gross earnings. The social security tax rate is $6.2 \%$, and the Medicare tax rate is $1.45 \%$. Use the format shown in your working papers.

| Employee | Marital Status | Allowances | Gross Earnings |
| :--- | :---: | :---: | :---: |
| Cleary, Kevin | S | 0 | $\$ 155.60$ |
| Halley, James | S | 1 | 184.10 |
| Hong, Kim | S | 0 | 204.65 |
| Jackson, Marvin | M | 1 | 216.40 |
| Sell, Richard | M | 2 | $\underline{196.81}$ |
| Total |  |  | $\$ 957.56$ |

## Problem 12-3 Analyzing a Source Document

Examine the following partially completed payroll check stub. The employee, Melanie Galvin, is single and claims one allowance. What amount should be deducted for:

1. Medicare tax?
2. Social

Security tax?
3. Federal Income tax?

| Employee Pay Statement Detach and retain this statement. |  |  |  |  |  |  |  |  |  |  | 260 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Period <br> Ending | Earnings |  |  | Deductions |  |  |  |  |  |  | Net Pay |
|  | Regular | Overtime | Total | Social Security Tax | Med. Tax | $\begin{array}{\|c\|} \hline \text { Federal } \\ \text { Income } \\ \text { Tax } \end{array}$ | State Income Tax | Hosp. Ins. | Other | Total |  |
| 1/15/20-- | 315.00 |  | 315.00 |  |  |  |  |  |  |  |  |

## section 3 Payroll Records

Before You

READ

## Main Idea

Businesses must keep accurate payroll records to comply with federal and state laws.

Read to Learn...
> what a payroll register is and how to prepare one. (p. 320)
> how employees receive their pay. (p. 322)
> how to maintain employees' earnings records. (p. 323)
> how owners and managers use payroll information to make decisions. (p. 324)

## Key Terms

payroll register
net pay
direct deposit
employee's earnings record accumulated earnings

In the previous sections you learned how to calculate gross earnings and deductions. Now you will learn how to compute net pay, prepare the payroll records for each period, and prepare payroll checks. Whether a business has many employees, like the Boeing Corporation, or a small staff, like a veterinarian's office, it is essential that
 the payroll be prepared on time and accurately.

## Preparing the Payroll Register

## What Is the Purpose of a Payroll Register?

Federal and state laws require businesses to keep accurate payroll records. To help meet these requirements, businesses use a payroll register. The payroll register is a form that summarizes information about employees' earnings for each pay period. Let's learn how to prepare payroll registers.

Figure 12-5 shows the payroll register for Roadrunner. As you can see, the payroll register lists each employee's I.D. number, name, marital status, and the number of allowances claimed. Refer to Figure 12-5 as you read the descriptions of the payroll register.


Figure 12-5 Completed Payroll Register

1. Total Hours Column. Regular and overtime hours from the employee's time card are added together, and the total is entered in this column.
2. Rate Column. This column shows the employee's current rate of pay, found on the employee's earnings record.
3. Earnings Section. The earnings section is divided into three columns:

- regular
- overtime
- total earnings

To complete these columns, the payroll clerk multiplies the hours worked by the employee's regular hourly rate or, when applicable, overtime hourly rate.
Employee 4, Amy Cole, worked 31 hours. Her regular hourly rate is $\$ 7.60$. Amy earned $\$ 235.60(31 \times \$ 7.60)$ for the week. Since there are no
 overtime hours, regular and total earnings are the same.

Alicia Phiffer, employee 12, worked 2 overtime hours in addition to 40 regular hours. Her regular hourly rate is $\$ 7.20$. Her overtime hourly rate is $\$ 10.80(\$ 7.20 \times 1.5)$. Her regular earnings are $\$ 288.00(40 \times \$ 7.20)$ and her overtime earnings are $\$ 21.60(2 \times \$ 10.80)$. Her total earnings are $\$ 309.60$ $(\$ 288.00+\$ 21.60)$.
4. Deductions Section. The illustrated payroll register has seven deduction columns. The number of deduction columns, however, varies among businesses depending on the specific needs of each business. In the illustration, columns are provided for the deductions required by law:

- social security tax
- Medicare tax
- federal income tax
- state income tax

Columns are also provided for voluntary deductions. Certain voluntary deductions taken by many employees on a regular basis will usually have their own columns, such as the column shown in the illustration for hospital insurance. Deductions taken less frequently are often placed in a column titled Other. In the illustration these deductions include credit union, union dues, savings bonds, and charitable contributions. Finally, a column is provided for the total deductions of each employee.
Look at the deductions for Garo Terzian, employee 14. Garo's deductions include the taxes required by law. He also has two voluntary deductions, $\$ 3.20$ for hospital insurance and $\$ 10.00$, shown in the Other column, for U.S. Savings Bonds. The total deductions for Garo are $\$ 62.60$ as shown in the Total column.
5. Net Pay Column. Net pay is the amount left after total deductions have been subtracted from gross earnings. The net pay for Garo Terzian is $\$ 200.65$.

## CULTURAL

Diversity
Proper Names
Not all countries use the "first name-last name" style that is used in the United States. For example, in Spanish-speaking Latin America, the surname includes the mother and father's last names. The father's name comes first and is the only one used in conversation.
6. Check Number Column. Most employees are paid by check. The payroll check numbers are recorded in this column.
7. Column Totals. Each amount column is totaled, and the totals are entered on the last line of the payroll register. To ensure that there are no mathematical errors, subtract the Total Deductions column total from Total Earnings column total. The result should equal the Net Pay column total.

## Paying Employees

## How Are Employees Paid?

Once the accuracy of the payroll register has been verified, a payroll check is prepared for each employee. Most businesses pay their employees by check as a means of cash control. When a company has only a few employees, payroll checks are written from the company's regular checking account. Companies with many employees have a separate checking account for payroll.

When a separate payroll checking account is used, funds are transferred to this account each pay period. A check for the total net pay amount is written from the company's regular checking account and deposited in the payroll checking account. Then individual payroll checks are issued to employees from the payroll account.

The payroll register is the source of information for preparing the payroll checks. Along with a payroll check, each employee is given a written or printed explanation showing how the employee's net pay is calculated. This explanation is provided on a stub attached to the payroll check. Figure 12-6 shows a typical payroll check and stub. Notice that for Emily Kardos, the amounts on the stub are the same as the amounts in the payroll register. After each payroll check has been written, the check number is recorded in the payroll register.


Figure 12-6 Completed Payroll Check and Stub

Employees can be paid by check or by direct deposit. The employer makes a direct deposit of the net pay electronically in the employee's personal bank account. No payroll check is prepared. The employee does, however, receive a printed record of the payroll calculation. Direct deposits are made through electronic funds transfer. With this system the employer informs the employee's bank of the amount to be deposited.

## The Employee's Earnings Record

## What Is the Purpose of an Employee's Earnings Record?

In addition to the payroll register, an employer must also keep an employee's earnings record for each employee. This record contains all of the payroll information related to an employee. Figure 12-7 on page 324 shows an example of an employee's earnings record. The earnings record and payroll register have the same amount columns:

- three earnings columns
- four columns for deductions required by law
- additional columns for voluntary deductions (in this case, two columns)
- the Total column
- the Net Pay column

An additional column for the employee's accumulated earnings is also provided. Accumulated earnings are the employee's year-to-date gross earnings. That is the amount of the employee's gross earnings from the beginning of the year through the end of the pay period just completed.

The accumulated earnings for Emily Kardos as of June 30 are computed by adding her gross earnings for the pay period just completed to her accumulated earnings for the previous pay period as follows:

| Gross Earnings <br> for Pay Period <br> Just Completed | + | Accumulated Earnings <br> for Previous <br> Pay Period |  | Accumulated Earnings <br> for Pay Period |
| :---: | :---: | :---: | :---: | :---: |
| $\$ 243.00$ | + | $\$ 4,178.60$ | $=$ | Just Completed |

Businesses keep employees' earnings records on a quarterly basis. This makes it easier to complete government reports that are required each quarter. At the end of a quarter, the amount columns on each employee's earnings record are totaled. The final amount in the Accumulated Earnings column is carried forward to the top of the employee's earnings record for the next quarter. Figure 12-7 on page 324 illustrates how accumulated earnings amounts are carried forward.

As you can see from this chapter, preparing payroll is time consuming and detail oriented. A mistake that is not promptly detected and corrected can mean hours of rework. To reduce simple mathematical errors and to improve productivity, many businesses use computers and special software to prepare payroll. In a computerized system, the computer

- performs all payroll calculations,
- prepares and prints the payroll register,
- prints the payroll checks and stubs, and
- maintains the employees' earnings records.

EMPLOYEE'S EARNINGS RECORD FOR QUARTER ENDING June 30, 20--

| Kardos |  |  |  | Emily |  |  |  | M |  | Employee no. 11 |  |  |  | MARITAL STATUS S |  |  |  |  | ALLOWANCES 0 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 809 East Main Street |  |  |  |  |  |  |  |  |  | position Delivery Driver |  |  |  |  |  |  |  |  |  |  |
|  | dress |  |  |  |  |  |  |  |  |  | , |  |  |  |  |  |  |  |  | SOC. SEC. No. |  |  |  |  |  |  |
| Sacramento, CA 94230 |  |  |  |  |  |  |  |  |  | RATE OF PAY_ 6.75 |  |  |  |  | 201-XX-XXXX |  |  |  |  |  |  |
| PAY PERIOD |  | EARNINGS |  |  |  | deductions |  |  |  |  |  |  |  |  |  |  |  |  | NETPAY | ACCUMULATED EARNINGS |  |
| No. | ENDED | Regular | OVERT | TIME | TOTAL | $\begin{aligned} & \text { SOC.SE } \\ & \hline \text { TAX } \end{aligned}$ |  | $\begin{aligned} & \text { MEDICA } \\ & \hline \text { TAX } \end{aligned}$ |  | $\begin{array}{\|l\|l\|} \hline \text { FED. INC. } \\ \hline \end{array}$ | STATE |  | $\begin{aligned} & \text { HOSP. } \\ & \text { INS. } \end{aligned}$ |  | Отне |  | TOTAL |  |  | 1,490 | 39 |
| 1 | 4/07/-- | 19913 |  |  | 19913 |  | 35 | , | 89 | 2200 | 3 | 98 |  | 20 | (B) 15 | 00 | 594 | 42 | 13971 | 1,689 | 52 |
| 2 | 4/14/-- | 20588 |  |  | 20588 | 12 | 76 | 2 | 99 | 2300 | 41 | 12 |  | 20 |  |  | 460 | 07 | 15981 | 1,895 | 40 |
| 3 | 4/21/-- | 27000 | 30 | 38 | 30038 | 18 | 62 | 4 | 36 | 3800 | 60 | 01 | 3 | 20 |  |  | 701 | 19 | 23019 | 2,195 | 78 |
| 4 | 4/28/-- | 22275 |  |  | 22275 | 138 | 81 | 3 | 23 | 2600 | 4 | 46 | 3 | 20 |  |  | 507 | 70 | 17205 | 2,418 | 53 |
| 5 | 5/05/-- | 22950 |  |  | 22950 | 14 | 23 | 3 | 33 | 2600 | 45 | 59 | 3 | 20 | ${ }^{(B)} 15$ | 00 | 66 | 35 | 16315 | 2,648 | 03 |
| 6 | 5/12/-- | 16200 |  |  | 16200 | 10 | 04 | 2 | 35 | 1700 | 3 | 24 | 3 | 20 |  |  | 358 | 83 | 12617 | 2,810 | 03 |
| 7 | 5/19/-- | 25650 |  |  | 25650 | 159 | 90 | 3 | 72 | 3100 | 51 | 13 | 3 | 20 |  |  | 589 | 95 | 19755 | 3,066 | 53 |
| 8 | 5/26/-- | 27000 | 20 | 25 | 29025 | 18 | 00 | 4 | 21 | 3700 | 8 | 81 | 3 | 20 |  |  | 68 | 22 | 22203 | 3,356 | 78 |
| 9 | 6/02/-- | 20419 |  |  | 20419 | 126 | 66 | 2 | 96 | 2300 | 0 | 08 | 3 | 20 | ${ }^{(B)} 15$ | 00 | 609 | 90 | 14329 | 3,560 | 97 |
| 10 | 6/09/-- | 21263 |  |  | 21263 | 13 | 18 | 3 | 08 | 2500 | 2 | 25 | 3 | 20 |  |  | 487 | 71 | 16392 | 3,773 | 60 |
| 11 | 6/16/-- | 18900 |  |  | 18900 | 11 | 72 | 2 | 74 | 2000 | 37 | 78 |  | 20 |  |  | 414 | 44 | 14756 | 3,962 | 60 |
| 12 | 6/23/-- | 21600 |  |  | 21600 | 13 | 39 | 3 | 13 | 2500 | 43 | 32 |  | 20 |  |  | 49 | 04 | 16696 | 4,178 | 60 |
|  | 6/30/-- | 24300 |  |  | 24300 | 150 | 07 | 3 | 52 | 2900 | 4 | 86 | 3 | 20 | (B) 15 | 00 | 706 | 65 | 17235 | 4,421 | 60 |
|  | ARTERLY | 2,880 58 | 50 | 63 | 2,931 21 | 181 | 73 | 42 | 51 | 34200 | 58 | 63 |  | 60 | 60 | 00 | 726 | 47 | 2,204 74 |  |  |
| Other Deductions: B-U.S. Savings Bonds; C-Credit Union; UD-Union Dues; UW-United Way. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Figure 12-7 Employee's Earnings Record

This amount will be carried forward to the next quarter's record.

## Managerial Implications for Payroll Accounting

## How Do Managers Use Payroll Information?

Wages and salaries form a large part of a company's expenses. Accurate and timely payroll records will assist management in planning and controlling these expenses. This information can be used in the following ways:

- To determine whether overtime is justified or is a sign of possible inefficiency.
- To compare actual amounts to budgeted amounts to reveal any unplanned overtime and the reason for it.

This information helps managers investigate any amounts that were not expected or were unusual. After identifying any irregularities, managers can determine what caused them and how to resolve them.

Management should also put internal controls in place to prevent errors and fraud. For example, payroll records should be audited carefully and payroll procedures should be evaluated periodically.

## SECTION 3 <br> Assessment

## After

## You

## READ

## Reinforce the Main Idea

Use a diagram like this one to show the similarities and differences between the payroll register and the employee's earnings record.
 Do the Math
While reviewing the payroll records from the past two years for Sports Junction, an athletic supply store, you notice that the increasing payroll cost could be holding down overall company profits. The company's payroll costs and revenue for the last eight quarters are provided. Use spreadsheet, accounting, or graphics software to create a line chart to compare the costs and revenue graphically. Analyze the chart, and make a recommendation to Sports Junction's management about the salary levels. Do you recommend downsizing to increase profit?

|  | Year 1 |  |  |  | Year 2 |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 |
| Payroll | 24,000 | 24,500 | 28,670 | 35,280 | 34,000 | 42,000 | 53,000 | 68,000 |
| Revenue | 136,700 | 151,200 | 183,500 | 234,000 | 143,000 | 142,500 | 143,000 | 138,500 |

## Problem 12-4 Preparing a Payroll Check

Use the information on the payroll register for Heather's Dance School and the form in the working papers to prepare a payroll check for Janice Burns for the week ending March 23, 20--.


## Key Concepts

1. Federal and state laws require employers to keep accurate records of all payroll information. Most employers use a payroll system to ensure that employees are paid on time and that their payroll checks and records are accurate. A well-designed payroll system achieves two goals:

- To collect and process all information needed to prepare and issue payroll checks.
- To generate payroll records needed for accounting purposes and for reporting to government agencies, management, and others.
A computerized system does the following:
- Performs all payroll calculations
- Prepares and prints a payroll register
- Prints the payroll checks and stubs
- Maintains employee's earnings records

2. Gross pay is the amount an employee earns before deductions. It may be calculated by various methods including

- salary,
- hourly wage,
- commission,
- salary plus commission or bonus,
- piece rate, or
- a combination of these methods.

Some employees who work more than 40 hours in a week are paid overtime. The overtime rate is usually $11 / 2$ times the regular rate of pay.

$\frac{$|  Regular  |
| :---: |
|  Hourly Rate  |}{$\$ 8.20$}$\times 1.5=\frac{$|  Overtime  |
| :---: |
|  Hourly Rate  |}{$\$ 12.30$}

3. Withholdings from gross earnings are called deductions. Some deductions are required by law. Other deductions are voluntary.
Deductions Required By Law

- federal income tax:
determined by Form W-4 and tax tables
- social security tax:
$6.2 \%$ of total gross earnings up to $\$ 90,000$
- Medicare tax:
$1.45 \%$ of total gross earnings
- state or local tax:
determined by the state or city


## Voluntary Deductions

- union dues
- insurance payments
- charitable contributions
- 401(k) plans
- other retirement-related contributions

4. Net pay is the amount of money actually received by the employee.

Gross Pay - Total Payroll Deductions = Net Pay
5. A payroll register summarizes information for all employees in a single pay period. A pay period is the amount of time over which employees are paid (for example, once a week or twice a month). The payroll register includes

- total hours;
- rate of pay;
- regular earnings, overtime earnings, and total earnings;
- deductions;
- net pay;
- payroll check number; and
- totals.

6. Payroll funds can be distributed to employees by check or by direct deposit through electronic funds transfer.
7. The employee's earnings record contains all information for a single employee. This record is kept quarterly to make it easier for the business to complete reports and forms required by the government.
The earnings record has the same amount columns that appear on the payroll register plus an additional column for accumulated earnings. These are the employee's earnings from the beginning of the year through the pay period just completed.

## Key Terms

| accumulated earnings | $(\mathrm{p} .323)$ | pay period | $(\mathrm{p} .310)$ |
| :--- | :---: | :--- | :---: |
| commission | $(\mathrm{p} .313)$ | payroll | $(\mathrm{p} .310)$ |
| deduction | $(\mathrm{p} .315)$ | payroll clerk | $(\mathrm{p} .310)$ |
| direct deposit | $(\mathrm{p} .323)$ | payroll register | $(\mathrm{p} .320)$ |
| electronic badge readers | $(\mathrm{p} .312)$ | piece rate | $(\mathrm{p} .313)$ |
| employee's earnings record | $(\mathrm{p} .323)$ | salary | $(\mathrm{p} .311)$ |
| $401(k)$ plan | $(\mathrm{p} .318)$ | time card | $(\mathrm{p} .312)$ |
| gross earnings | $(\mathrm{p} .311)$ | wage | $(\mathrm{p} .312)$ |
| net pay | $(\mathrm{p} .321)$ | withholding allowance | $(\mathrm{p} .315)$ |
| overtime rate | $(\mathrm{p} .313)$ |  |  |

## CHAPTER 12 Review and Activities

## Check Your Understanding

1. Payroll Records
a. What are two goals of a payroll system?
b. List five tasks that an effective payroll system performs.
2. Gross Pay
a. List and describe five employee bases or categories used to compute gross pay.
b. Define overtime rate.
3. Withholdings
a. List the three federal taxes that businesses are required to withhold from employees' wages.
b. What three factors determine the amount of federal income tax withheld from an employee's earnings each period?
4. Net Pay
a. How is net pay calculated?
b. Does an individual's net pay appear on the payroll register, the employee's earnings record, or both?
5. Payroll Register
a. What information does the payroll register contain?
b. Each page of the payroll register covers a period of time. What time period does it cover?
6. Payroll Funds Distribution
a. Explain how direct deposit of earnings works.
b. How does an employee who receives a payroll check know how the amount of net pay was determined?
7. Employee's Earnings Record
a. What is the purpose of the employee's earnings record?
b. What information does the Accumulated Earnings column on the employee's earnings record contain?

## Apply Key Terms

You are the payroll clerk for Wild West Amusement Park. The new sales manager for the Western region, Will Klein, called and asked you to explain the items on his payroll check, dated January 31, 20--. He also asked you to explain any relevant company payroll procedures. Use these key terms in your written explanation. Use your imagination!
accumulated earnings commission deduction direct deposit electronic badge readers employee's earnings record 401(k) plan gross earnings net pay
overtime rate pay period payroll payroll clerk payroll register piece rate salary
time card wage
withholding allowance

## Preparing the Payroll

Making the Transition from a Manual to a Computerized System

| Task | Manual Methods | Computerized Methods |
| :---: | :---: | :---: |
| Enter and maintain employee information; process payroll. | - Calculate employee gross earnings based on time cards or salary information. <br> - Calculate required and voluntary deductions for each employee. <br> - Complete the payroll register. <br> - Prepare payroll checks. <br> - Update employee earnings records. <br> - Prepare journal entries. <br> - Post journal entries to the general ledger. | - Set up information related to employee earnings and deductions in employees' records. <br> - Based on rate, deduction, and withholding information for each employee, the software automatically calculates gross earnings and deductions. <br> - The payroll checks, journal entries, and ledger postings are generated automatically. |

## 

| Peachtree Question | Answer |
| :--- | :--- |
| How do I process a | 1. Select Payroll Entry from the Tasks menu. |
| payroll? | 2. Select the employee(s) to be paid. |
|  | 3. Verify the pay amounts that are automatically entered for you. (These amounts <br> are pulled from employee records stored in the system.) |
|  | 4. Type the hours worked or the commission amounts. |
|  | 5. Click Save. <br>  <br>  <br>  <br>  <br> 6. To print payroll checks, click on Open, select checks to print and click OK. <br> 7. Click Print. |

## 

| QuickBooks Question | Answer |
| :--- | :--- |
| How do I process a | 1. Select Pay Employees from the Employees menu. |
| payroll? | 2. Set the date of payment and end of payroll period. |
|  | 3. Select the employees to be paid and click Create. |
|  | 4. Verify the pay amounts that are automatically entered for you. (These amounts |
|  | are pulled from employee records stored in the system.) |
|  | 5. Type the hours worked or the commission amounts. |
|  | 6. Click Create. |
|  | 7. To print payroll checks, click on File, select Print Forms, and then Paychecks. |
|  | 8. Click OK and then Print. |

## CHAPTER I2 <br> Problems

## Peachtree ${ }^{\bullet}$

## SMART GUIDE

Step-by-Step Instructions: Problems 12-5

1. Select the problem set for Wilderness Rentals (Prob. 12-5).
2. Rename the company and set the system date.
3. Enter John Gilmartin's regular and overtime pay rates using the Employees/Sales Reps option in the Maintain menu.
4. Calculate the employees' gross pay using the Payroll Entry option.
5. Print a Payroll Register report.
6. Proof your work.
7. Complete the Analyze activity.
8. End the session.

## QuickBooks

## PROBLEM GUIDE

Step-by-Step Instructions:
Problem 12-5

1. Restore the Problem 12-5.QBB file.
2. Enter John Gilmartin's regular and overtime pay rates using the Employee List option in the Employees menu.
3. Calculate the employee's gross pay using the Pay Employees option in the Employees menu.
4. Print an Employee Earnings Summary report using the Employees \& Payroll option in the Reports menu.
5. Proof your work.
6. Complete the Analyze activity.
7. Back up your work.

## Problem 12-5 Calculating Gross Pay

Wilderness Rentals pays employees either an hourly wage or a salary plus commission based on rental revenue. Hourly wage employees can earn overtime. The overtime rate is $11 / 2$ times the regular hourly rate of pay for hours worked over 40 in a week.
Instructions For each of the following employees, determine the total gross pay for the pay period.
John Gilmartin

- Earns an hourly wage of $\$ 6.80$.
- Worked 43 hours this week.


## Arlene Stone

- Receives a salary of $\$ 250$ per week plus a $3 \%$ commission on rental revenue.
- Had rental revenue of $\$ 760$ this week.

Tom Driscoll

- Earns an hourly wage of $\$ 7.35$.
- Worked 39 hours this week.

Ann Ryan

- Receives a salary of $\$ 185$ per week plus $3 \%$ commission.
- Had rental revenue of $\$ 1,235$ this week.

Analyze Identify the employee who had the lowest gross pay for the week.

## Problem 12-6 Preparing a Payroll Register

Hot Suds Car Wash has four employees. They are paid on a weekly basis with overtime paid for all hours worked over 40 in a week. The overtime rate is $1 \frac{1}{2}$ times the regular rate of pay. The payroll information follows.

| Employee | Employee <br> Number | Rate per <br> Hour | Marital <br> Status | Allowances | Union <br> Member |
| :--- | :---: | :---: | :---: | :---: | :---: |
| James Dumser | 108 | $\$ 6.40$ | Single | 0 | No |
| Gail Job | 112 | $\$ 7.22$ | Married | 1 | Yes |
| James Liptak | 102 | $\$ 6.70$ | Married | 2 | Yes |
| Bruce Stern | 109 | $\$ 7.80$ | Single | 1 | Yes |

During the week ending October 9, Dumser worked 39 hours, Job worked 41 hours, and Liptak and Stern each worked 36 hours.

## Problems

Instructions On the forms provided in your working papers:

1. Prepare a payroll register for the week ending October 9. The date of payment is also October 9. List employees in alphabetical order by last name. Use the tables on page 317 to determine the federal income tax withholding. The rate for the state income tax is $2 \%$. Compute social security tax at $6.2 \%$ and Medicare tax at $1.45 \%$. Union members pay weekly dues of $\$ 4.50$. Both Gail Job and Bruce Stern had $\$ 6.75$ deducted for health and hospital insurance.
2. Total the amount columns. Subtract total deductions from total earnings. Does the result equal the sum of the Net Pay column? If not, find and correct any error(s) on the payroll register.

## Analyze Identify the employee who had the highest amount withheld

 for federal income tax for the week.
## Problem 12-7 Preparing Payroll Checks and Employee's Earnings Records

## CHAPTER I2

## SPREADSHEET SMART GUIDE

Step-by-Step Instructions: Problem 12-6

1. Select the spreadsheet template for Problem 12-6.
2. Enter your name and the date in the spaces provided on the template.
3. Complete the spreadsheet using the instructions in your working papers.
4. Print the spreadsheet and proof your work.
5. Complete the Analyze activity.
6. Save your work and exit the spreadsheet program.

The payroll register for Kits \& Pups Grooming is presented here and also appears in your working papers.

| PAY PERIOD ENDING October 17 |  |  |  |  |  |  |  | PAYROLL REGISTER |  |  |  | DATE OF PAYMENT October 17, 20-- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | NAME |  |  | RATE | EARNINGS |  |  |  | deductions |  |  |  |  |  |  |  | NET PAY | CK. |
|  |  | regular |  |  |  | OVER | RTME | Total | ${ }_{\text {Soce }}^{\text {STAX }}$ SEC. | [MEDICARE] |  |  | ${ }_{\text {Hosp }}^{\text {Hos. }}$ | отн |  | total |  |  |
| 1 | 162 |  | Hurd, Mildred | S 0 | 38 | 7.60 | 28880 |  |  | 288180 | 1791 | 419 | 3500 | 722 |  | (8) 5 |  | 6932 | 21948 |  |
| 2 | 157 | Montego, José | S 1 | 39 | 7.90 | 30810 |  |  | 30810 | 1910 | 447 | 3000 | 770 | 510 |  |  | 6637 | 24173 |  |
| 3 | 151 | Pilly, Amanda | M 2 | 36 | 8.10 | 29160 |  |  | 29160 | 1808 | 423 | 1000 | 729 | 760 | (B) 5 | 00 | 5220 | 23940 |  |
| 4 | 163 | Steams, Margaret | S 0 | 41 | 7.60 | 30400 |  | 140 | 31540 | 1955 | 457 | 4000 | 789 |  |  |  | 7201 | 24339 |  |
| 24 |  |  | + |  |  |  |  |  |  |  |  |  |  | , |  | - |  |  | 24 |
| 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | TOTALS |  |  |  |  | 1,192 50 |  | 140 | 1,203 90 | 7464 | 1746 | 11500 | 3010 | 1270 | ${ }^{(8)} 10$ | 00 | 25990 | 94400 |  |
| Other Deductions: Witte the appropriate code letter to |  |  |  |  |  | the left of the | mour | ant: B-U | -u.s. Savings | Bonds; C-Cre | edit Union: U | UD-Union D | ues; UW-Un | ited Way. |  |  |  |  |  |

Instructions On the forms in your working papers:

1. Prepare a payroll check and stub for each employee. Where would you record the check numbers in the payroll register?
2. Record the payroll information in the employee's earnings records for José Montego and Amanda Pilly.

## Analyze Identify the net pay for José Montego for this week.

## Problem 12-8 Preparing the Payroll

Outback Guide Service has six employees and pays each week. Hourly employees are paid overtime for all hours worked over 40 in a week. The overtime rate is $11 / 2$ times the regular rate of pay. Outback pays its employees by hourly rate, salary, or salary plus a $5 \%$ commission on total amount of sales.

## Peachtree ${ }^{\circ}$

## SMART GUIDE

Step-by-Step Instructions: Problem 12-7

1. Select the problem set for Kits \& Pups Grooming (Prob. 12-7).
2. Rename the company and set the system date.
3. Print payroll checks using the Payroll Entry option.
4. Print a Payroll Register report and a Current Earnings report.
5. Complete the Analyze activity.
6. End the session.

## Problems

## Peachtree ${ }^{\circ}$

## SMART GUIDE

Step-by-Step Instructions: Problem 12-8

1. Select the problem set for Outback Guide Service (Prob. 12-8).
2. Rename the company and set the system date.
3. Record the payroll and print a check for each employee using the Payroll Entry option.
4. Print a Payroll Register report and a Current Earnings report.
5. Proof your work and make any needed corrections.
6. Complete the Analyze activity.
7. End the session.

TIP: Use the Windows calculator accessory if you need to make a calculation (e.g., commission).

Method of Computing Earnings

| Employee | Hourly Wage | Salary | Salary Plus <br> Commission |
| :--- | :---: | :---: | :---: |
| Cummings, Carol <br> Dame, Ted | $\$ 6.95$ | $\$ 270.00$ |  |
| Lengyel, Tom |  |  | $\$ 160.00$ plus 5\% |
| Robinson, Jean <br> Usdavin, James <br> Wong, Kim | $\$ 6.65$ |  | $\$ 140.00$ plus 5\% |
|  |  | $\$ 140.00$ plus 5\% |  |

Employee deductions include federal income taxes (use the tables on page 317), FICA taxes at $6.2 \%$ for social security and $1.45 \%$ for Medicare, state income taxes of $1.5 \%$, and hospital insurance premiums of $\$ 5.43$ for single employees and $\$ 9.37$ for married employees. Also, Kim Wong and Tom Lengyel have $\$ 10.00$ withheld each week to purchase U.S. savings bonds.

During the pay period ending October 17, the sales were: Tom Lengyel \$1,204.76, Jean Robinson \$1,925.80, and Kim Wong \$2,135.65.

The hourly employees filled in the following time cards.


## Problems

Instructions On the forms in your working papers:

1. Complete the time cards to the nearest quarter hour.
2. Prepare a payroll register for the week ending October 17. The date of payment is also October 17. Each employee's number, marital status, and number of allowances claimed are listed on her or his employee's earnings record.
3. Prepare a payroll check and stub for each employee.
4. Record the payroll information for each employee on her or his employee's earnings record.

## Analyze Calculate the total amount deducted from employees' gross pay for FICA taxes (social security and Medicare).

## Problem 12-9 Preparing the Payroll Register

Showbiz Video has six employees who are paid weekly. The hourly employees are paid overtime for hours worked over 40 in a week, at a rate $11 / 2$ times their regular rate of pay. Employee information follows:

| $\quad$Employee | Employee Number |
| :--- | :---: |
| Mary Arcompora | 105 |
| Barbara Fox | 137 |
| John French | 135 |
| Chris German | 141 |
| David Izbecki | 139 |
| Susan Tilbert | 129 |

Mary Arcompora, the store manager, is paid a salary of $\$ 300.00$ per week plus $1 \%$ of all rental sales. Barbara Fox and John French, salespeople, are paid a salary of $\$ 200.00$ per week plus a $6 \%$ commission on all rentals from the "Oldies but Goodies" section. Chris German and David Izbecki, office workers, are paid an hourly wage of $\$ 7.25$. Susan Tilbert, a stock person, is paid $\$ 6.40$ per hour.

The payroll deductions include federal income tax, social security tax of $6.2 \%$, Medicare tax of $1.45 \%$, and state income tax of $1.8 \%$. Chris German and

| Marital Status | Allowances |
| :---: | :---: |
| Married | 2 |
| Married | 1 |
| Single | 1 |
| Married | 4 |
| Single | 0 |
| Married | 1 |


| NO. 141 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| name Chris German |  |  |  |  |  |  |  |
| soc. SEC. No. 449-XX-XXXX |  |  |  |  |  |  |  |
| WEEK ENDING |  |  | October 24, 20-- |  |  |  |  |
| DAY | IN | OUT | IN | OUT | IN | OUT | TOTAL |
| M | 8:05 | 12:03 | 1:00 | 5:05 |  |  |  |
| T | 8:00 | 12:05 | 1:10 | 5:00 |  |  |  |
| w | 9:05 | 12:05 | 1:15 | 6:05 |  |  |  |
| Th | 8:30 | 11:55 | 1:15 | 6:00 |  |  |  |
| F | 8:00 | 12:00 | 1:00 | 6:15 |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| TOTAL HOURS |  |  |  |  |  |  |  |
| REGULAR |  |  |  | OURS | RATE |  | AMOUNT |
|  |  |  |  |  |  |  |  |
| OVERTIME |  |  |  |  |  |  |  |
| total earnings |  |  |  |  |  |  |  | Susan Tilbert have $\$ 12.50$ deducted each week for hospital insurance.

During the week ending October 24, "Oldies but Goodies" rentals were $\$ 484.90$ for Barbara Fox and $\$ 641.70$ for John French. Total rental revenue for the week was $\$ 3,917.30$.

## Peachtree ${ }^{\circ}$

SMART GUIDE
Step-by-Step Instructions: Problem 12-9

1. Select the problem set for Showbiz Video (Prob. 12-9).
2. Rename the company and set the system date.
3. Record the payroll for each employee.
4. Print a Payroll Register report.
5. Proof your work.
6. Complete the Analyze activity.
7. End the session.

## Problems

## Instructions

Prepare a payroll register in your working papers for the week ending October 24. Complete time cards to the nearest quarter of an hour. Use the federal income tax tables provided in the chapter.


## Analyze

Compute the total net pay of all employees for the pay period.

SOURCE DOCUMENT PROBLEM

## Problem 12-10

Use the source documents in your working papers to complete this problem.

## Peachtree ${ }^{\circ}$

## SMART GUIDE

## Step-by-Step Instructions:

Problem 12-10

1. Select the problem set for Job Connect (Prob. 12-10).
2. Rename the company and set the system date.
3. Calculate the employees' gross pay using the Payroll Entry option.
4. Print a Payroll Register report.
5. Proof your work.
6. Complete the Analyze activity.
7. End the session.

## Challenge Problem

## Problem 12-10 Calculating

 Gross EarningsJob Connect has seven employees, all of whom are paid weekly. For hourly wage employees, overtime is paid at $1 \frac{1}{2}$ times the regular rate of pay for hours worked over 40 in a week.

Barbara Miller, the office manager, is paid a salary of $\$ 375.00$ per week plus a bonus of $3 \%$ of all revenue over $\$ 6,000$ per week. Lynn Austin, an office assistant, is paid a salary of $\$ 250.00$ per week plus $5 \%$ of all telephone sales made in the office. Charlene Womack, the office secretary, is paid a salary of $\$ 230.00$ per week. Susan Dilloway and Doris Franco, placement workers, are paid an hourly wage of $\$ 8.95$. Pam Darrah is also a placement worker but is paid a commission of $\$ 35.00$ for every job placement that she completes. David Facini, a part-time maintenance worker, is paid $\$ 6.75$ per hour.

For the week ending October 24, the office recorded the following payroll information.

- Total office sales for the week were $\$ 8,420.00$.
- Susan Dilloway worked a total of $381 / 2$ hours.
- Doris Franco worked a total of $41 \frac{114}{4}$ hours.
- Phone sales for the week were $\$ 1,375.00$.
- Pam Darrah made seven job placements.
- David Facini worked a total of 23 hours.

Instructions Using the form provided in your working papers, calculate the gross earnings for the workers at Job Connect for the week ending October 24.

## Winning Competitive Events

Practice your test-taking skills! The questions on this page are reprinted with permission from national organizations:

- Future Business Leaders of America
- Business Professionals of America

Use a separate sheet of paper to record your answers.

## Future Business Leaders of America

## Multiple Choice

1. Which form is considered the Withholding Allowance Certificate?
a. W-2
b. W-4
c. 1040
d. 1099
e. none of these answers
2. Julie earns $\$ 18.50$ per hour. She is paid overtime (time and one-half) for hours worked on Sunday. The first Sunday in June she worked 6 hours, giving her 46 hours for the week. What were her gross wages if total taxes withheld equaled $18 \%$ ?
a. $\$ 851.00$
b. $\$ 1,069.67$
c. $\$ 743.33$
d. $\$ 906.50$

## Business Professionals of America

## Multiple Choice

3. The Accumulated Earnings column of the employee earnings record
a. shows net pay for the year.
b. is the total earnings since the first of the year.
c. shows net pay for one quarter.
d. is the gross earnings for one quarter.
4. The Medicare tax is calculated by
a. multiplying total earnings by the tax rate.
b. multiplying net earnings by the tax rate.
c. using a tax table.
d. none of these
5. Jacqueline earns $18 \%$ commission on sales. Her sales for three months were:
$\$ 2,870, \$ 3,150$, and $\$ 3,940$. What was her total commission for the three months?
a. $\$ 9,960.00$
b. $\$ 1,792.08$
c. $\$ 1,792.80$
d. $\$ 1,792.81$

Need More Help?
Go to glencoeaccounting.glencoe.com and click on Student Center. Click on Winning Competitive Events and select Chapter 12.

- Practice Questions and Test-Taking Tips
- Concept Capsules and Terminology


## CHAPTER I2 Real-World Applications and Connections

## CRITICAL <br> Thinking

## Payroll Accounting

1. Define gross earnings.
2. Compare and contrast gross earnings and net pay.
3. Classify the following deductions as voluntary or required by law: county income tax, dental insurance payment, federal income tax, Medicare insurance payment, United Way donation, vision insurance payment.
4. Refer to the payroll register on page 320 and look at the entry for Amy Cole. What documents were used to calculate Amy's net pay?
5. You need to create a new employee's earnings record for an employee whose record has been lost. What information will you need, and where will you find it?
6. Justify the fact that a business can have different pay categories for employees.

Payroll: Financial Planning
You are employed by Tallman Financial Advisors, owned by Marcy Tallman. Parker's Framing hired Tallman to design its payroll system. Parker's Framing will offer group health insurance to its employees and a retirement plan that will require contributions from both the employer and employees. Marcy has assigned the Parker's Framing payroll project to you.

## Instructions

1. Draft a one-page report describing the payroll system you would design for Parker's Framing. Include information on payroll forms, how hours worked will be collected, and payroll deductions.
2. Proofread the draft. Make sure there is a supporting paragraph for each main point. Also check for correct spelling, grammar, and punctuation.
3. Prepare the final document.

## Payroll Information

Payroll clerks have access to personal information about employees, such as rate of pay and marital status. Imagine that you are the payroll clerk for a clothing store like Gap. Your friend Janet, who also works at the store, is interested in one of the sales clerks. She wants you to find out how much money he makes and whether he is married.

## Ethical Decision Making

1. What are the ethical issues?
2. What are the alternatives?
3. Who are the affected parties?
4. How do the alternatives affect the parties?
5. What would you do?

## Evaluating Direct Deposit

A new co-worker has the choice of receiving a paycheck or using direct deposit. She asks for your recommendation. Write a paragraph explaining direct deposit and recommending whether or not your co-worker should use it.

## Integrity

Employees who demonstrate integrity are able to make ethical decisions.
On the Job As a payroll clerk for Fun ' $n$ ' Games Amusement Park, you have access to confidential information about employees. Your friend and co-worker, Mark Arnold, asked you to divulge payroll information about Melissa Porter, who has the same job title he has. Melissa just received a pay raise. Mark did not.
Instructions Write a few sentences explaining how you would respond to Mark's request.

## Offshoring

Offshoring is the practice of U.S. companies using overseas providers for certain tasks. For example, technology companies like IBM and Microsoft have used programmers in India, mainly because overseas salaries are lower than U.S. salaries. Results have been mixed. Some companies report problems in employee turnover and communication. Others find that investors like the lower costs.
Instructions Define offshoring in your own words and discuss its potential advantages and disadvantages for a business.

## Your Part-Time Job

Students often seek part-time jobs to earn some spending money.
Personal Finance Activity Ask your friends who have jobs how their hours worked are reported to the payroll accountant. Write a report discussing the different methods of reporting hours worked.
Personal Finance Online log on to glencoeaccounting.glencoe.com and click on Student Center. Click on Making It Personal and select Chapter 12.

## Analyzing Employee Productivity

One measure of productivity is the average sales dollars generated by each employee. For example, in a company with total revenue of $\$ 1,480,000$ and 20 employees, sales per employee are $\$ 74,000$, calculated as follows:

## $\frac{\text { Total Revenue }}{\text { Number of Employees }}=$ Sales per Employee

Calculating this measure from period to period or one part of a company to another can identify productivity changes. If sales per employee change greatly, the owner needs to learn why.
Instructions Answer these questions using Roadrunner's income statement on page 222.

1. If Roadrunner has two employees including the owner, what is the revenue per employee?
2. Suppose Roadrunner hires two more delivery people. The next month's revenue increases to $\$ 5,400$. How has the productivity per employee changed?
