

# 1.1 Investigating Jobs and Their Related Pay

Focus: calculating gross pay

## Chapter 1

### Warm Up

1. Determine without using a calculator.

a)  $10 \times 30 =$  \_\_\_\_\_

b)  $10 \times 35 =$  \_\_\_\_\_

c)  $10 \times 40 =$  \_\_\_\_\_

d)  $10 \times 45 =$  \_\_\_\_\_

2. Calculate the length of time in hours between

a) 8 a.m. and 4 p.m. \_\_\_\_\_

b) 9 a.m. and 5:30 p.m. \_\_\_\_\_

c) 7:30 a.m. and 5 p.m. \_\_\_\_\_

d) 7 a.m. and 5:30 p.m. \_\_\_\_\_

e) 11 p.m. and 7:30 a.m. \_\_\_\_\_

3. a) Calculate the total hours Nicki worked last week.

**M** 8

**T** 9

**W** 9

**T** 8

**F** 0

**S** 8

**S** 5

**Total**

b) Calculate her total earnings if she earns \$8/hr.

4. a) Research and state the minimum wage in Ontario for workers aged 18 or over.

b) Is there more than 1 minimum wage in Ontario? Explain.

5. How many regular hours will someone need to work to earn \$200 at \$8/hour?

6. Calculate.

a) 1% of 100 = \_\_\_\_\_

b) 5% of 100 = \_\_\_\_\_

c) 5% of 300 = \_\_\_\_\_

d) 5% of 3000 = \_\_\_\_\_

**Skills Practice 1: Calculating Percents**

- "Percent" means "for each 100."
- A waitress who receives a tip of 10% earns 10 cents out of every dollar (100 cents) on the bill, 100 cents (1 dollar) for every 10 dollars on the bill, 10 dollars for every 100 dollars, and so on.

Shade in 10 boxes in the following hundreds grid.


1. Solve the following.

a) 5% of 100 = \_\_\_\_\_ b) 7% of 100 = \_\_\_\_\_

c) 20% of 100 = \_\_\_\_\_

Then, what is 6% of 200? Shade in 6 out of each 100.



So, 6% of 200 is \_\_\_\_\_.

2. Solve the following.

a) 6% of 300 = \_\_\_\_\_ b) 6% of 400 = \_\_\_\_\_

c) 6% of 500 = \_\_\_\_\_

But what about finding 6% of 493?

The answer has to be just a bit less than \_\_\_\_\_.

What is the pattern in solving #2?

Explain how you would find 6% of 800.

So, "of" implies multiplication.  
How can you find 6% of 493?  
It depends on the type of calculator that you have.



### Tech Tip: A Percent of a Number

How to calculate a percent of a number using a calculator depends on what type of calculator you have.

If you are using a calculator that has a % key, enter

$$493 \times 6 \% =$$

If your calculator has % as a second function on another key, you will likely need to enter this keystroke sequence:

$$493 \times 6 \text{ 2nd } \% =$$

6% of 493 = 29.58 This makes sense because it is "a bit less" than 6% of 500, which you determined earlier to be 30.

3. Use a calculator to solve the following.

a) 12% of 250 = \_\_\_\_\_

b) 9% of 475 = \_\_\_\_\_

c) 6% of 980 = \_\_\_\_\_

d) 12.5% of 600 = \_\_\_\_\_

e) 70% of 430 = \_\_\_\_\_

f) 90% of 550 = \_\_\_\_\_

### Calculating Gross Pay

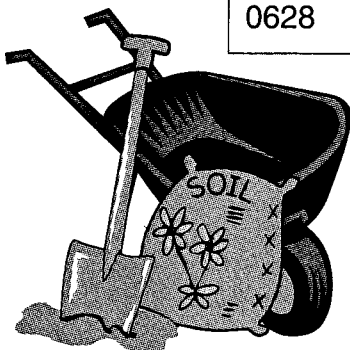
- Pay for work done is often stated in different ways.
- Read each classified ad.

#### Job 1

Landscape labourer wanted.  
M-F, 8-4, some OT. \$9.75 to start. Call Dan at 289-XXX-0628

#### Job 2

General labourer wanted.  
Mostly landscaping with some lifting. \$10/hr. 30-40 hrs/wk. Some weekends. 905-XXX-1432



1. a) Given that each day includes a 30-minute unpaid lunch period, how many regular hours per day will you work at Job 1?

- b) How many hours per week will you work at Job 1?

2. **Gross pay** is an employee's total earnings before any deductions are taken off. **Deductions** are costs, such as taxes, that are removed from total earnings. Calculate the gross pay for 1 week's work at Job 1.

Go to pages 1–6 to write definitions for **gross pay** and **deductions** in your own words.

3. Calculate the range of gross pay per week that is possible at Job 2.

- a) 30 hrs/wk = \$ \_\_\_\_\_  
b) 40 hrs/wk = \$ \_\_\_\_\_

To calculate gross pay, multiply the number of hours worked by the hourly wage.

4. a) If both jobs are offered to you, which one will you select? \_\_\_\_\_

- b) Give some reasons for your choice.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- A local newspaper's web site has 3 ads for cooks.
- Read each ad.

**Job 1**

**Job 2**

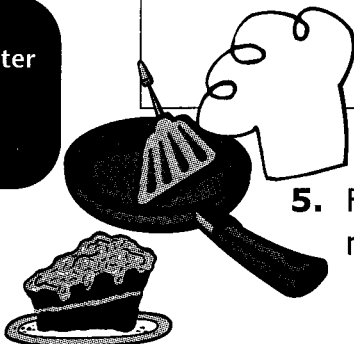
**Job 3**

2 full-time cooks wanted immediately. \$10/hr. Apply in person at Olde Towne Grille.

Kitchen prep & line cooks wanted. Experience an asset but not necessary. \$9/hr + % of tips. Apply in person at 231 St. Paul St. West.

COOK WANTED for Residential Boarding School. Competitive pay and benefits. Papers an asset. Fax résumé to 613-XXX-6607, attention HR.

**Chapter  
1**



5. For each employer, write 3 different questions that you might ask when you apply for the job.

What information about the job is important to you?

Job	Questions
a) Job 1	<p>Question 1:</p> <p>Question 2:</p> <p>Question 3:</p>
b) Job 2	<p>Question 1:</p> <p>Question 2:</p> <p>Question 3:</p>
c) Job 3	<p>Question 1:</p> <p>Question 2:</p> <p>Question 3:</p>

- Job 1 averages 45 hours per week.
- Job 2 averages 40 hours per week. The share of weekly tips is approximately \$75.
- Job 3 pays \$8.50 per hour for a 50-hour week and offers prescription drug and dental benefits.

6. a) At which job can a cook earn the most money? \_\_\_\_\_

Job 1	Job 2	Job 3
45 h × _____ =	_____ h × _____ =	_____ h × _____ =

b) A **pay package** is the total value, not just money, you receive for the work you do. Might receiving benefits make Job 3 more attractive? Explain your thinking.

Go to pages 1–6 to write a definition for **pay package** in your own words.

7. Collect information about jobs that interest you and that are currently available in your area. Use a variety of sources. Copy or attach the ads or job descriptions in your notebook.

a) Do all of your ads contain the same information? What are the similarities and differences?

Possible sources to collect information include the local newspaper, employment centres, the Internet, and grocery store bulletin boards.

## ✓ Check Your Understanding

1. State 3 factors, other than \$/hour, that would affect whether you apply for or consider accepting a certain job.

a) \_\_\_\_\_

b) \_\_\_\_\_

c) \_\_\_\_\_

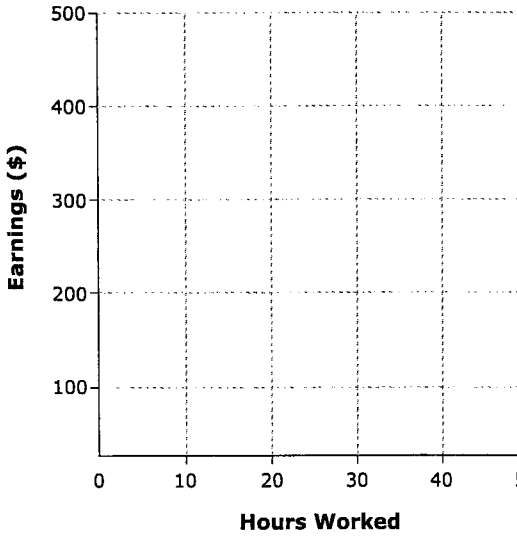
## 1.2 Ways of Being Paid for Work

Focus: calculating hourly and weekly earnings

### Chapter

# 1

### Warm Up

- |   |  |
|---|--|
| <p>1. a) How many days are in 2 weeks?</p> <p>b) How many days are in June?</p>   | <p>2. What date is 14 days after March 26?</p>   |
| <p>3. If you earn \$9 per hour, how much will you earn in ...</p> <p>a) 10 hours? _____</p> <p>b) 20 hours? _____</p> <p>c) 30 hours? _____</p> | <p>4. Create a line graph using the data obtained in #3.</p>  |
| <p>5. Extend the pattern in the graph to estimate the earnings for 50 hours worked.</p>   | <p>6. Calculate.</p> <p>a) 5% of \$100 = _____</p> <p>b) 5% of \$1000 = _____</p> <p>c) 5% of \$2000 = _____</p> <p>d) 5% of \$4000 = _____</p>  |

## Ways of Being Paid

There are different ways of being paid for work.

- A **salary** is an amount of money earned per year.
- A **wage** is an amount of money earned per hour.
- **Piecework** is an amount of money per unit work.
- **Commission** is a percentage of the dollar amount you sell.

Match the words in Column A with the examples in Column B.

A	B
1. salary _____	a) \$14/hour
2. wage _____	b) 5% of sales
3. piecework _____	c) \$12 per crate
4. commission _____	d) \$35 000 per year

Go to pages 1–6 to write definitions for **salary**, **wage**, **piecework**, and **commission** in your own words.

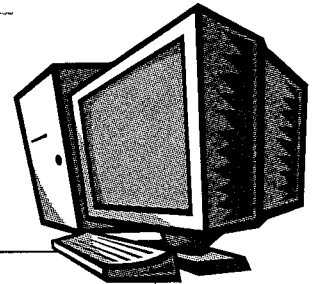
5. State 1 occupation that you think matches each pay type.

- a) salary \_\_\_\_\_
- b) wage \_\_\_\_\_
- c) piecework \_\_\_\_\_
- d) commission \_\_\_\_\_

- Mohsen is interested in obtaining experience as a salesperson in an electronics store.
- There are 2 stores that are currently advertising for salespeople.

BIG BOX ELECTRONICS requires salesperson for computer department. \$12/hr, no commission. Bring résumé to North End location between 12 and 2.

Love to help customers? ELECTRONICS DEPOT is looking for energetic people to work in computer sales. Drop by 1112 Mondesto Dr. with résumé.



- Mohsen visits Big Box Electronics and is told that he can expect full-time work ranging from 35 to 45 hours per week.
- Electronics Depot's salespeople earn a 4% commission on all sales. Their best salespeople average \$80 000 in sales per month.



# Chapter 1

6. Calculate the range of gross pay per week that is possible at Big Box Electronics.

a) 35 hrs/wk = \$ \_\_\_\_\_

b) 45 hrs/wk = \$ \_\_\_\_\_

7. Complete the following table of values showing commissions earned for different levels of monthly sales at Electronics Depot.

Weekly Sales (\$)	\$ 0	\$20 000	\$40 000	\$60 000	\$80 000	\$90 000
Earnings						

8. a) What criteria should Mohsen consider before accepting 1 of the jobs?

---

---

---

---

- b) Explain your thinking.

---

---

---

9. What questions might he ask the store manager at Electronics Depot if he were offered the sales position?

---

---

---

---

Go to pages 1–6 to write definitions for **pay schedule** and **sales period** in your own words.

- A **pay schedule** is the schedule of when you get paid.
- A **sales period** is the period of time where your sales are counted and commission is calculated for your pay.

- 10. a)** Ali is a salesperson at Electronics Depot. He earns 4% commission and had the following sales amounts in December and January.

	Pay Period	Sales	Commission	Total Earnings
<b>A</b>	December 1–15	\$61 950	$61\,950 \times 4\%$ = _____	$\$61\,950 +$ _____ = _____
<b>B</b>	December 16–31	\$47 570	_____ $\times 4\%$ = _____	_____
December Total (Row A + Row B)			_____ + _____ = _____	_____ + _____ = _____

	Pay Period	Sales	Commission	Total Earnings
<b>A</b>	January 1–15	\$18 040		
<b>B</b>	January 16–31	\$13 820		
January Total (Row A + Row B)				

- b)** Give possible reasons why Ali's total income for December and January is so different.

\_\_\_\_\_

\_\_\_\_\_

Chapter  
1

11. a) Ali is paid on the Friday after the end of each sales period. Circle the day that he was paid for each of the sales periods in 10a).

DECEMBER						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JANUARY						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

FEBRUARY						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

- b) How might the pay schedule at Electronics Depot affect Ali's spending habits?

Go to pages 1–6 to write a definition for **base salary** in your own words.

12. Andy's friend Bryan works in a men's clothing store. He earns a **base salary**, or minimum salary, of \$350 per week. His commission is 5% on all sales. Calculate Bryan's total weekly income for the following sales amounts.

Weekly Sales	Commission Earnings	+ Base Salary	= Total
a) \$1000	$\$1000 \times \underline{\hspace{1cm}}\%$ = _____	+ \$350	= _____
b) \$2000	$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}\%$ = _____	+	= _____
c) \$3000			
d) \$4000			

- Students hired to pick fruit in the summer are often paid by piecework. They get paid at the end of the day for each basket of fruit that they have picked.
- Abas and Marty are hired by a local farmer to pick strawberries at \$2.00 per 2-litre basket.



**13. a)** Abas and Marty start work at 7:00 a.m. and finish at 5:30 p.m. How many hours do they work each day?

**b)** How much did Marty earn if he picked 42 baskets in 1 day?

**c)** The same day, Abas picked 29 baskets. Calculate his total earnings.

**d)** Marty worked for the equivalent of \$ \_\_\_\_\_ per hour.

**e)** Abas worked for the equivalent of \$ \_\_\_\_\_ per hour.

### **✓ Check Your Understanding**

- 1.** State 1 advantage for the employee of being paid each of the following ways. Then state 1 advantage for the employer of paying someone that way.

	<b>Advantage to Employee</b>	<b>Advantage to Employer</b>
<b>a) By piecework</b>	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>
<b>b) By commission</b>	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>

Focus: solving problems about time

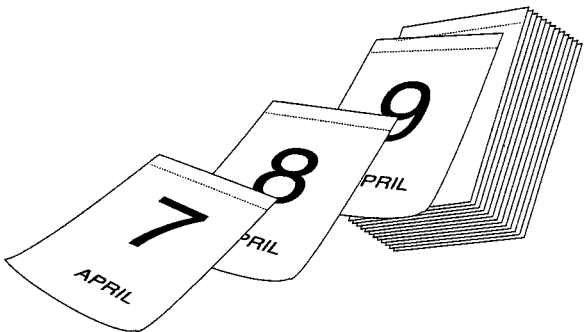
# Chapter 1

## Warm Up

- # 1. List in order the months of the year along with the number of days in each month.

- f)**  **in g) 1**

- 4.** Write \$3 million as a number.



## The Timing of Earnings

1. Survey members of your class to determine how students are paid.

Name	Employer	How Paid (e.g., hourly)	Estimated Hours Per Week	Pay Schedule (e.g., every Thursday)

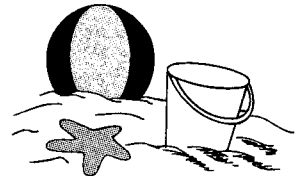
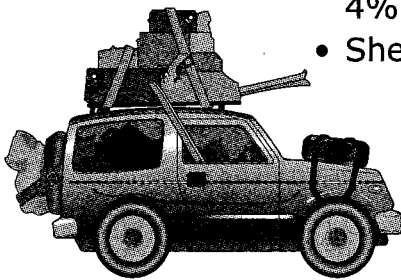
2. a) Many workers are paid weekly. Without considering time off for vacations, these people will be paid \_\_\_\_\_ times in 1 year.
- b) People paid weekly will usually be paid \_\_\_\_\_ times per month.
- c) Study a current calendar. How many months have 4 weeks?
- \_\_\_\_\_
- d) Explain why people who are paid weekly get paid 5 times in some months.
- \_\_\_\_\_
- \_\_\_\_\_
- e) How many times does this happen each year?
- \_\_\_\_\_

# Chapter 1

3. Jenn works as a receptionist in a downtown office. She earns \$11.25 per hour and usually works 36 hours per week.

- Calculate her weekly earnings.
- Calculate her total earnings for a month in which she receives 4 pay cheques.
- Calculate her total earnings for a month in which she receives 5 pay cheques.
- Calculate her total earnings for a year if she receives 3 weeks of unpaid holidays per year.

- Vacation pay** is money paid by an employer to employees instead of paying employees during their holidays.
- Each year, Jenn's employer pays her vacation pay equal to 4% of her yearly earnings.
- She receives the vacation pay on the last pay in June.



4. Calculate her expected vacation pay if she worked 49 weeks last year. Assume she did not miss 1 day's work throughout the year.

Go to pages 1–6 to write definitions for **vacation pay** and **bi-weekly** in your own words.

- Many workers are paid **bi-weekly**, or every other week. Without considering vacation time, these people will be paid \_\_\_\_\_ times in 1 year.
- People paid bi-weekly are usually paid \_\_\_\_\_ times per month. Sometimes they are paid \_\_\_\_\_ times per month.

6. Jenn's husband Mark works for the city's parks and recreation department. He earns \$27.55 per hour operating a backhoe and usually works 40 hours per week.

a) How many hours does Mark work in a 2-week period?

b) Calculate his total earnings for 1 pay period.

c) Calculate his total earnings for a "2-pay" month.

d) Calculate his total earnings for a "3-pay" month.

e) Calculate his total earnings for a year if he works 48 weeks per year.



7. Mark also earns vacation pay equal to 9% of his annual earnings. Calculate his expected vacation pay if last year he used all of his 4 weeks of unpaid holidays. Assume he did not miss 1 day's work throughout the year.

Vacation pay = 9% of \_\_\_\_\_  
= \_\_\_\_\_



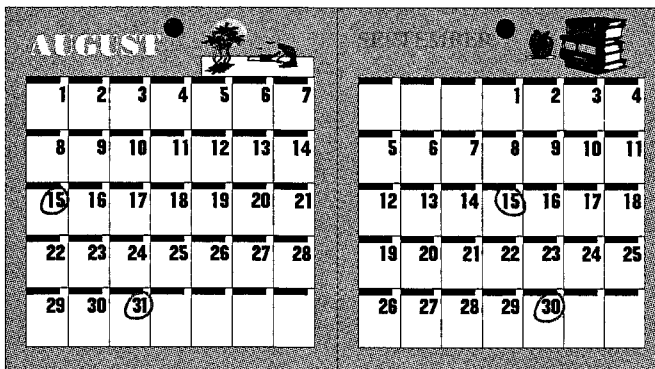
Go to pages 1–6 to write a definition for **semi-monthly** in your own words.

8. a) Calculate Jenn and Mark's combined annual family income.

b) Their combined income averages \$ \_\_\_\_\_ per month or approximately \$ \_\_\_\_\_ per week.

- Some people are paid **semi-monthly**, or twice a month.
- Often, this means being paid on the 15th of each month and also on the last day of each month.
- These people are paid exactly \_\_\_\_\_ times in 1 month.

9. People paid semi-monthly are always paid \_\_\_\_\_ times per year.



10. Helga is a manager in the human resources department in a hospital. She earns an annual salary of \$68 000 and she is paid semi-monthly.

a) Calculate her earnings per pay.

b) Calculate her total earnings per month.

- c) What are her total earnings for a year if she receives 6 weeks of paid holidays per year?
- d) Explain why Helga has her monthly car payment and monthly car insurance payment deducted from her account on the 16th of every month.

### ✓ Check Your Understanding

1. Complete the following table.

Annual Earnings	Amount of Each Pay If Paid			
	Weekly	Bi-weekly	Semi-monthly	Monthly
a) How to make calculations.	Base sum divided by	Base sum divided by	Base sum divided by	Base sum divided by
b) \$32 000				
c) \$44 500				
d) \$3 million				

## 1.4 Understanding Different Pay Schedules

Focus: investigating fractions and calendars

### Chapter 1

#### Warm Up

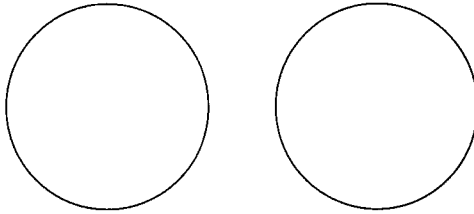
1. Determine without using a calculator.

- a) What is half of 12? \_\_\_\_\_  
 b) What is half of 9? \_\_\_\_\_  
 c) What is half of \$16.50? \_\_\_\_\_

2. A recipe calls for  $\frac{1}{2}$  cup of brown sugar.  
 How much brown sugar is needed if you ...

- a) double the recipe? \_\_\_\_\_  
 b) triple the recipe? \_\_\_\_\_

3. Shade in one and a half circles.



4. Fill in the missing value on this time sheet.

<b>M</b>	8
<b>T</b>	7
<b>W</b>	<input type="text"/>
<b>T</b>	8
<b>F</b>	9
<b>S</b>	5
<b>S</b>	0
<b>Total</b>	46

5. If September 3rd falls on a Monday, what are the dates of the other Mondays in September?

6. Complete the conversions.

- a)  $\frac{1}{2}$  hour = \_\_\_\_\_ min.  
 b)  $1\frac{1}{2}$  hours = \_\_\_\_\_ min.  
 c) 3 hours = \_\_\_\_\_ min.

7. List the months that have 31 days.

8. How many months have exactly 30 days?

#### Planning and Pay Schedules

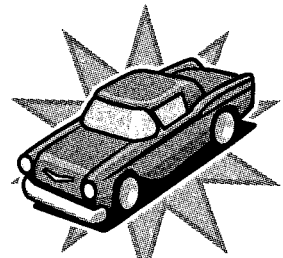
- How often employees are paid affects how they make decisions about spending their money.
- Three other factors that are affected by how often employees are paid are how to save, how to set up regular payments, and when to pay the bills.

- Juha is in his twenties, is single, and lives alone. For the past 2 years he has worked as a driving instructor.
- He earns \$18 per 1-hour lesson and is paid at the end of each workweek on Friday.

1. a) Complete the table to determine Juha's earnings for the month of June.

Week Beginning	Number of In-car Lessons	Earnings	Date Pay Received
Monday, June 2	44		
Monday, June 9	56		
Monday, June 16	52		
Monday, June 23	43		
Monthly Totals			

b) Circle Juha's pay dates on the calendars shown here.



MAY						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

JUNE						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

JULY						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

When was the first pay that Juha received in June?

Date \_\_\_\_\_

Chapter  
**1**

- 2.** Juha's rent is due on the 1st of each month. His car insurance payment is due on the 3rd of each month. Why does he have to watch the calendar and always plan ahead for these expenses?

\_\_\_\_\_  
\_\_\_\_\_

- 3.** Will being paid bi-weekly make Juha's planning any easier?

YES      NO

Explain why or why not.

\_\_\_\_\_  
\_\_\_\_\_

- 4.** Will being paid on the last day of each month make Juha's planning any easier?

YES      NO

Explain why or why not.

\_\_\_\_\_  
\_\_\_\_\_

- Karen is a kindergarten teacher who is paid semi-monthly.
- She is paid on the 15th and on the last day of each month.
- Each pay she receives approximately \$1600.

- 5.** Calculate Karen's approximate pay per month.

- **Fixed expenses** are expenses that don't change from month to month. Complete the following table.

Go to pages 1–6 to write a definition for **fixed expenses** in your own words.

6. a) Calculate the total of Karen's monthly fixed expenses.
- b) Suggest the day of the month that Karen might consider having each fixed expense deducted from her bank account. Give a reason for choosing each date.

Fixed Expenses	Amount	Date Chosen for Payment	Reason for Date
Mortgage	\$725		
Car payment	\$298		
Home and car insurance	\$114		
Student loan	\$237		
Life insurance	\$105		
Total			

7. Why is this type of **financial planning**, or planning how and where to spend money, easier for someone who is paid semi-monthly than someone who is paid weekly?

Go to pages 1–6 to write a definition for **financial planning** in your own words.

8. List other expenses that Karen might have.

- **Non-salaried** employees do not earn a set salary. The opportunity to work overtime can help them make decisions about when to pay bills, make large purchases, or save extra money.
- **Overtime** is extra pay for working extra hours or holidays.
- Overtime can be paid as **time and a half**, which is one and a half times the regular pay rate. It can also be paid as **double time**, or twice the regular pay rate. On occasion, overtime can even be triple time!

9. a) Explain what being paid time and a half means.

Go to pages 1–6 to write definitions for **non-salaried**, **overtime**, **time and a half**, and **double time** in your own words. Give at least 2 examples of overtime pay rates.

- b) Imagine that you are in a job paying \$12 per hour. You are offered time and a half for working overtime. Show the sequence of keystrokes that you enter into your calculator to determine your new hourly rate of pay.

10. Calculate the time-and-a-half pay wage for the following regular hourly wages.

Regular Hourly Rate	Overtime Hourly Rate (Time and a Half)
a) \$14.60	
b) \$11.40	
c) \$10.75	



- 11.** Alejandra usually earns \$13.87 per hour and works 40 hours per week at a local grocery store. Last week she worked an extra 8-hour shift and earned double time for those extra hours.

- a)** What is Alejandra's usual weekly salary?
- b)** How much more than usual did Alejandra make last week? Show your work.

## Check Your Understanding

- 1.** Explain how someone's pay schedule affects the way they budget their money and manage their expenses.