Time is very important to human beings. All of man's activities are dependent on time. For example, we eat our meals at certain times of the day. We work and we sleep at particular times also. We use time to measure achievements, milestones and progress. We also use time to make plans and schedules of activities and projects.

This module will discuss how people use time in order to go about their daily activities. It will also give ideas on how people can manage their time, so that they can make use of it wisely and effectively.

This module is divided into three lessons:
Lesson 1 - How Much Time?

Lesson 2 - Right on Schedule
Lesson 3 - Reading Time Charts and Tables

## What Will You Learn From This Module?

After studying this module, you should be able to:

- compute the difference between two readings of time, using the 12hour and 24-hour clocks;
- make a schedule of your activities; and
- read and interpret time charts and timetables.


## Let's See What You Already Know

Before starting with the lessons of this module, answer the following questions first. This will determine what you already know about the topic.

1. Aling Gina started washing her family's clothes at $2: 25$ p.m. and finished at 5:10 p.m. How long did it take Aling Gina to wash their clothes?

## Solution:

$\square$
2. Mang Ramon started working in the farm at 1050 hours and finished at 1420 hours. How long did Mang Ramon work in the farm?

## Solution:

$\square$
3. Nelson is sick and needs to take the prescribed medicine every 2 hours and 30 minutes. If he took his first dose of medicine at 0920 hours, what would be his schedule for taking the next two doses of medicine?

## Solution:

$\square$
4. Most Filipinos have the habit of putting off for tomorrow things that can be done today. This is called the mañana habit. Explain its bad effects and give suggestions on how to change this bad habit.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
5. Look at the flight schedule below.

| Manila to | Flight Number/ <br> Aircraft | Frequency | Departure | Arrival |
| :---: | :---: | :---: | :---: | :---: |
| Zamboanga | PR 123 <br> (A320/B737) | Daily | 0450 H | 0620 H |
| Zamboanga | PR 125 <br> (B737) | Daily | 1530 H | 1700 H |


| Manila <br> to | Flight Number/ <br> Aircraft | Frequency | Departure | Arrival |
| :---: | :---: | :---: | :---: | :---: |
| Zamboanga | PR 124 <br> (A320/B737) | Daily | 0720 H | 0850 H |
| Zamboanga | PR 126 <br> (B737) | Daily | 1740 H | 1910 H |

Based on the flight schedule, answer the following questions:
a. What is the flight number and aircraft that travels from Manila to Zamboanga scheduled for departure at 5:40 p.m.?
$\qquad$
b. At what time will the aircraft with flight number PR123 arrive in Zamboanga?
$\qquad$
c. What is the destination of flight number PR124?
$\qquad$
d. What is the departure time of flight number PR126?
$\qquad$
Well, how was it? Do you think you fared well? Compare your answers with those in the Answer Key on pages 43-44.

If all your answers are correct, very good! This shows that you already know much about the topic. You may still study the module to review what you already know. Who knows, you might learn a few more new things as well.

If you got a low score, don't feel bad. This means that this module is for you. It will help you understand important concepts that you can apply in your daily life. If you study this module carefully, you will learn the answers to all the items in the test and a lot more! Are you ready?

You may now go to the next page to begin Lesson 1.

## Lesson 1

## How Much Time?

What is time? Every day we use clocks, calendars and schedules to organize our activities. Time is very important to us. But hardly anyone can define what time is.

This module will not attempt to define time, which is a difficult thought to understand even for philosophers and scientists. Instead, you will learn in this module how to measure time and make wise use of it to organize your activities.

After studying this lesson, you should be able to:

- identify the common units used for measuring time; and
- compute the time interval between two time readings using the 12 -hour and the 24 -hour clocks.

Let us see if you can measure the length of time during which a certain event occurred. Try answering the questions below. You may answer in terms of seconds, minutes, hours, days, weeks, months or years. You can approximate (estimate) your answers if you don't know the exact length of time.

1. How long does it take you to brush your teeth?
2. How long do you sleep at night?
3. When will you turn 50 years old (how long from now)?
4. How often do you trim your nails?
5. How long does it take you to read this sentence?
$\qquad$
6. How long will it take before your next birthday?

Here are sample answers to the questions above:

1. How long does it take you to brush your teeth?

5 minutes
2. How long do you sleep at night?

7 hours
3. When will you turn 50 years old?

30 years from now
4. How often do you trim your nails?

Once a week
5. How long does it take you to read this sentence?

About 3 seconds
6. How long will it take before your next birthday?

10 months from now
Man's activities are all dependent on time. Without time measurements, our daily activities would be disorganized. Time measurements help us measure how long in the past or how far in the future a particular event occurred or will occur. It also measures the duration a certain activity took place, takes place, or will take place.

Why do you think time measurement is important?

Compare your answer with the one in the Answer Key on page 44.

## Let's Study and Analyze

Do you know that there are two types of clocks by which we can tell time? These are the 12 -hour and 24 -hour clocks. Let's study them.

## The 12-Hour Clock

The clock we commonly use for measuring time is the 12 -hour clock. The drawing on the right is an example of this clock, which is divided into 12 hours.

Since a day is 24 hours long, there are two 12 -hour rotations in this clock. One part of the day is from midnight until before noon; that is, from 12:00 a.m. to 11:59 a.m. The other half of the day is from noon until before midnight of the next day; that is, from 12:00 p.m. to 11:59 p.m.


Do you know what a.m. and p.m. mean? The term "a.m." comes from the Latin words ante meridien, meaning between midnight and noon. The term "p.m.", on the other hand, means post meridien that refers to a time between noon and midnight.

## Measuring Time Intervals

How do you measure time intervals on a 12 -hour clock? Let us look at some examples below to find out.

## EXAMPLE 1

Mrs. Santos' class took the exam at 9:00 a.m. and finished at 11:30 a.m. How long did the class take the exam?

## Solution:

The two time intervals are both set in a.m. so we can subtract the two time readings directly. Separate the hours from the minutes.

|  | Hours | Minutes |
| :---: | :---: | :---: |
| Finish | 11 | 30 |
| Start | -9 | -00 |

The answer is 2 hours and 30 minutes.

## EXAMPLE 2

Ate Nilda is taking medications for her sickness. She took some medicine this evening at 6:45 p.m. and took another dose at 10:15 p.m. What is the time interval between her medicine intakes?

## Solution:

The two time intervals are both set in p.m. so we can subtract the two time readings directly. Separate the hours from the minutes.

|  | Hours | Minutes |
| :--- | :---: | :---: |
| $2^{\text {nd }}$ intake | 10 | $15 \longrightarrow$ |
| $1^{\text {st }}$ intake | -6 | $-45 \longrightarrow$ |
|  |  |  |

Notice that we cannot subtract the values in the minutes column, since the minuend is smaller than the subtrahend. So, we need to borrow 1 hour from the 10 hours and convert it to 60 minutes. Then we add it to the minuend of the minutes column:

Subtract 1 hour

| Hours | Minutes |
| :---: | :---: |
| $10-1$ |  |
| -6 |  | | $15+60-45$ |
| :---: |

Simplifying the above expression:

|  | Hours | Minutes |
| :---: | :---: | :---: |
|  | 9 <br> -6 | 75 |
| Answer | $\rightarrow 45$ |  |
|  |  | 3 |

The time interval between Ate Nilda's medicine intakes is 3 hours and 30 minutes.

Now we will try solving problems on time interval involving time readings in both p.m. and a.m.

## EXAMPLE 3

Mang Anding started working in the farm at 7:10 a.m. and finished at 3:35 p.m. How long did Mang Anding work in the fields?

## Solution:

We need a separate computation for Mang Anding's work in the morning (a.m.) and his work in the afternoon (p.m.).
A. Mang Anding's work in the morning (7:10 a.m. to 12:00 noon)

| Hours | Minutes |  |
| :---: | :---: | :---: |
| 00 <br> -10$\longrightarrow$Minuend <br> -7 | Subtrahend |  |

Notice that in the minutes column, the minuend is smaller than the subtrahend. We need to subtract one hour from 12 and add 60 minutes to the minuend of the minutes column.

Subtract 1 hour

| Hours | Minutes |
| ---: | :---: |
| $12-1$ <br> -7 | $00+60$ <br> -10 |
|  |  |

Simplifying the expression we have:

Answer $\quad$|  | Hours | Minutes |
| :---: | :---: | :---: |
|  | 11 | 60 |
|  | -10 |  |
|  |  | 4 |

Mang Anding's work in the morning lasted for 4 hours and 50 minutes.
B. Mang Anding's work in the afternoon (12:00 noon to 3:35 p.m.)

The time Mang Anding spent working in the afternoon is 3 hours and 35 minutes.
C. Total time Mang Anding spent working:

Add the time he spent working in the morning and in the afternoon.

|  | Hours | Minutes |
| :--- | :---: | :---: |
| Morning | 4 | 50 |
| Afternoon | +3 | +35 |

85 minutes is equivalent to 1 hour and 25 minutes.


The total time Mang Anding spent working is 8 hours and 25 minutes.

1. Aling Flor started baking bread at $2: 25 \mathrm{p} . \mathrm{m}$. and finished at $4: 40 \mathrm{p} . \mathrm{m}$. How long did she bake bread?

## Solution:

|  | Hours | Minutes |
| :--- | :--- | :--- |
| Finish |  |  |
| Start |  |  |
|  |  |  |
|  |  |  |

2. Mang Pedro started working at the factory at 7:30 a.m. and stopped working at 5:40 p.m. How much time did Mang Pedro spend working?

## Solution:

Separate the computation for the morning and for the afternoon.
A. Time Mang Pedro spent working in the morning (7:30 a.m. to 12:00 p.m.):

| Hours | Minutes |
| :---: | :---: |
|  |  |
|  |  |

B. Mang Pedro's work in the afternoon (12:00 p.m. to 5:40 p.m.)

Add the time he spent working in the morning and in the afternoon.

|  | Hours | Minutes |
| :--- | :--- | :--- |
| Morning <br> Afternoon |  |  |
|  |  |  |
|  |  |  |

Total time Mang Pedro worked: $\qquad$
Compare your answers with those in the Answer Key on page 45.

## Let's Learn

## The 24-Hour Clock

The 24 -hour clock is widely used in scientific work. It is also known as military time. Time interval computations are much easier in this system, as you will see in the examples later on.

The 24 -hour clock starts at midnight, 12:00 a.m. (0000 hours) through 11:59 p.m. (2359 hours). Below is a table showing the 12 -hour time and its equivalent in the 24 -hour time.

| 12-h our time | Equivalent in 24-h our time | 12-h our tin |
| :---: | :---: | :---: |
| 12:00 a.m. | 0000 | 12:00 p.m |
| 1:00 a.m. | 0100 | 1:00 p.m. |
| 2:00 a.m. | 0200 | 2:00 p.m. |
| 3:00 a.m. | 0300 | 3:00 p.m. |
| 4:00 a.m. | 0400 | 4:00 p.m. |
| 5:00 a.m. | 0500 | 5:00 p.m. |
| 6:00 a.m. | 0600 | 6:00 p.m. |
| 7:00 a.m. | 0700 | 7:00 p.m. |
| 8:00 a.m. | 0800 | 8:00 p.m. |
| 9:00 a.m. | 0900 | 9:00 p.m. |
| 10:00 a.m. | 1000 | 10:00 p.m |
| 11:00 a.m. | 1100 | 11:00 p.m |

## Let's Study and Analyze

Below are some examples showing how to compute the time interval in the 24-hour clock.

## EXAMPLE 1

Mang Lito, a jeepney driver, started plying his route at 0745. He finished his jeepney trips at 1550 . How long did Mang Lito drive his jeepney?

## Solution:

Subtract the two time readings directly. Separate the hours from the minutes.

|  | Hours | Minutes |
| :--- | :---: | :---: |
| Start | 15 | 50 |
| Finish | -07 | -45 |
|  | 8 | 5 |

Mang Lito drove the jeepney for 8 hours and 5 minutes.

## EXAMPLE 2

Aling Selya worked as a secretary in a small office. She worked overtime last Saturday from 0930 to 1615 . How much time did she spend in the office last Saturday?

## Solution:

Subtract the two time readings directly. Separate the hours from the minutes.
$\left.\begin{array}{|c|cc|}\hline \text { Hours } & \text { Minutes } & \\ \hline 16 \\ -09\end{array} \begin{array}{rl}15 \\ -30\end{array}\right]$ Minuend

As you can see in the minutes column, the subtrahend is greater than the minuend. Therefore, you need to borrow 1 hour from 16 and add 60 minutes to the minuend of the minutes column.


Simplifying the expression:

| Hours | Minutes |
| :---: | :---: | :---: |
| 15 |  |
| -09 | 75 |
| 60 | 45 |

Aling Selya worked last Saturday for 6 hours and 45 minutes.

1. Aling Lydia will cater food for her aunt's birthday. She started preparing the food at 1025 and finished at 1845 . How much time did she spend preparing the food?

## Solution:

| Hours | Minutes |
| :---: | :---: |
|  |  |
|  |  |

2. Mang Berto started working in the rice fields at 1415 and finished his work at 1710 . How many hours did he spend working in the fields?

## Solution:

| Hours | Minutes |
| :---: | :---: |
|  |  |
|  |  |

Compare your answers with those in the Answer Key on page 46.

## Let's Study and Analyze

We will now study computations of time intervals for taking prescription medicine. Below are some examples.

## EXAMPLE 1

Aling Lucia needs to take medicine prescribed by the doctor every 4 hours and 30 minutes. If she started taking medicine at $6: 00 \mathrm{a} . \mathrm{m}$., when will be her next 2 intakes of medicine?

## Solution:

Let us first solve for her second medicine intake. She first took a dose of medicine at 6:00 a.m. Since it is easier to solve when using the 24 -hour clock, we convert the 12 -hour time to 24 -hour time. Therefore, 6:00 a.m. becomes 0600 hours.

|  | Hours | Minutes |  |
| :--- | :---: | :---: | :---: |
| Add 4 hours | 06 | 00 |  |
|  | $\longrightarrow+4$ | 30 | Add 30 mir |
|  | 10 | 30 |  |

Her second intake of medicine should be at 1030 hours or 10:30 a.m.
Let us now solve for her third medicine intake.

|  | Hours | Minutes |  |
| :---: | :---: | :---: | :---: |
| Add 4 hours | 10 | 30 |  |
|  | $\longrightarrow+4$ | 30 | Add 31 <br> minute |
|  | 14 | 60 |  |

The answer is 1460 hours. There is no such time in a 24 -hour clock so we must simplify this answer. For the 24 -hour time, the maximum for the hour value is 23 . If you exceed this value, subtract 24 from the hour value. For the minute value, the maximum is 59 . If you exceed this value, subtract 60 from the minute value and add 1 hour to the hour value.

In this case, the minute value exceeds 59 so we need to subtract 60 from the minute value and add 1 hour to the hour value.

| Add 1 hour | Hours | Minutes | Subtract 60 mi |
| :---: | :---: | :---: | :---: |
|  | 14 | 60 |  |
|  | + 1 | -60 |  |
|  | 15 | 00 |  |

Her third intake of medicine is at 1500 hours or 3:00 p.m. The answers are summarized below.

| Medicine Intake | 24-hour Time | 12-hour Time |
| :---: | :---: | :---: |
| $1^{\text {st }}$ intake | 0600 | 6:00 a.m. |
| $2^{\text {nd }}$ intake | 1030 | $10: 30$ a.m. |
| $3^{\text {rd }}$ intake | 1500 | 3:00 $\mathrm{p} . \mathrm{m}$. |

## Let's Review

1. Aling Nita's son got sick and the doctor prescribed some medicine for him. He had to take the medicine every 3 hours and 30 minutes. If he first took medicine at 7:15 a.m., what should be his schedule for the next two intakes of medicine?

## Solution:

The time used is the 12 -hour time. Convert it first to 24 -hour time so that the computations are easier.

Schedule for second intake of medicine:

| Hours | Minutes | Second intake of <br> medicine |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |

Schedule for third intake of medicine:

| Hours | Minutes | Third intake of <br> medicine |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |

Compare your answers with those in the Answer Key on page 46.

## Let's Remember

- The 24-hour clock is more convenient to use in time interval computations than the 12 -hour clock;
- Time measurement units help us measure how long in the past or how long in the future a certain event occurred or will occur;
- Time measurement units help us measure the time interval of a certain event.


## Let's See What You Have Learned

Congratulations! You have reached the final part of the first lesson. All you have to do now is answer the following questions. This will determine how much you have learned from this lesson. Good luck!

1. Mang Rudy started to sleep at $2: 25 \mathrm{p} . \mathrm{m}$. and woke up at $5: 10$ p.m. How long did Mang Rudy take a nap? (2 points)

## Solution:

| Hours | Minutes |
| :---: | :---: |
|  |  |
|  |  |

2. Manang Lita took a bus from Manila bound for Pangasinan. The bus left at 1145 and arrived in Pangasinan at 1705. How long was Manang Lita's trip? (2 points)

## Solution:

| Hours | Minutes |
| :---: | :---: |
|  |  |
|  |  |

3. Aling Nelly needs to take medicine every 3 hours and 30 minutes. She took her first dose of medicine at 0920 . What would be her schedule for taking the next 2 doses of medicine?

## Solution:

Schedule for second intake of medicine: (2 points)


Schedule for third intake of medicine: (2 points)


Was the test difficult? I'm sure you got the correct answers if you studied the exercises in the lesson carefully. Compare your answers with those in the Answer Key on page 47. If your test score is:

7-8 Excellent! You have understood the lesson well. Now turn to the next page for the next lesson.

3-6 Review the parts of the lesson which you did not understand.
0-2 You should study the whole lesson again.

## Lesson 2

## Right on Schedule

Are you often late for an activity or meeting? Do you find it hard to organize your daily activities? Do you often feel like you don't have enough time to accomplish the things you need to do? Or, are you a person who has so many activities, but at the end of the day you feel like you haven't accomplished a thing?

This lesson will help address your problems in organizing your activities. You will be taught how to schedule your work and activities. After studying this lesson, you should be able to:

- estimate the amount of time needed to undertake certain tasks; and
- be able to organize your work and activities by scheduling.


## Let's Read

Aling Lolit is a working mother. She works as a secretary in a small office. Her husband is a jeepney driver. They have two kids, Jun and Tintin. Jun is in first year high school while Tintin is in Grade 4.

Aling Lolit is an extraordinary woman. Aside from her duties at home and at work, she is the vice president in an organization in their community. She is also an active member of the Parish Council.

Lately, she has been very busy with her activities and is having a difficult time coping with so many things. One day, when she arrived at the office to work. . .


After work, Aling Lolit went home to prepare food for her family and iron some clothes. She was in a hurry because she had a meeting with the community organization about the deep well project they were planning...


Aling Lolit came late for the meeting. The other members of the community organization were all waiting for her so that the meeting could start.


When Aling Lolit came back home, it was almost midnight. Her husband and her kids were already asleep. She watched them as they were sleeping soundly. She realized how much she missed them. Aling Lolit wished she had spent more time with them.

She hasn't had a good talk with her husband or even with her kids for a long time now. She has been too busy. She has been busy with her work, busy with her commitments in the community, and busy with her activities in the Parish Council.

As Aling Lolit watched her family sleeping, she felt so helpless. . . and as a tear dropped from her cheek, she began to wash the bundle of clothes that had piled up over the week.

What can you suggest Aling Lolit do to solve her problem?
$\qquad$
$\qquad$
$\qquad$
Compare your answer with that in the Answer Key on page 48.

We Filipinos do not seem to be time-conscious. We are often late for meetings, appointments and other scheduled activities. In fact, the term "Filipino time" connotes this bad habit.

This lesson will show you how you can break this bad habit. It will also explain the advantages of being on time. But remember that it is you who will decide whether you want to change your bad habits or not.

Here is where time management comes in. The guidelines below will help you manage your time wisely, so that you can be a more efficient and productive person.

- Prioritize

You should always choose to do the activities that are most important to you. For example, would you choose to go to work or take care of your sick child?

Both your work and your child are important. But between your work and your child, which is more important? You have to learn to let go of one thing to prioritize the other, more important one.

## - Organize and schedule your activities

It would be advisable to plan your activities for the day. Make sure to organize your schedule very well, so that your time will not be wasted.

Below is a sample schedule of Aling Rosa, a housewife.

| 6:00 a.m. | Cook breakfast |
| :---: | :---: |
|  | Help kids prepare for school |
| 7:00 a.m. | Wash clothes |
|  |  |
| 8:00 a.m. | Iron clothes |
|  |  |
| 9:00 a.m. | Feed farm animals |
|  | Clean house |
| 10:00 a.m. | Gardening |
|  |  |
| 11:00 a.m. | $\checkmark$ |
| 12:00 p.m. | Lunch with Kumareng Inday |
|  |  |
| 1:00 p.m. | Take a nap |
|  |  |
| 2:00 p.m. | Pay electricity bill |
|  |  |
| 3:00 p.m. | Visit mother who is sick |
|  |  |
| 4:00 p.m. |  |
| 5:00 p.m. | Help kids with their studies |
|  |  |
| 6:00 p.m. | Cook for dinner |
|  |  |
| 7:00 p.m. | Dinner with family |
|  |  |
| 8:00 p.m. | Attend meeting with Parish Council |
|  |  |
| 9:00 p.m. | Budget finances with husband |

- Stop delaying and start doing

We Filipinos are accustomed to doing things at the last minute. We tend to postpone activities for tomorrow and have the habit of doing things in a hurry when the deadline is near. Because of this, our jobs are often disorganized and not done well. As what happens usually, we cannot meet the deadlines. Or, if we do meet them, our work is of poor quality because it was done hurriedly.

We should start to discipline ourselves and work on schedule. Planning and doing activities at the right time will eliminate having to rush and beat deadlines. It also assures a better quality of work.

## - Avoid time-wasters

In choosing to be a productive person, you need to slowly avoid time-wasters. What are these time-wasters? These are activities that are not productive and won't contribute to your personal growth and development. Below is a list of common time-wasters:

| Time-Wasters |  |
| :--- | :--- |
| Watching senseless TV shows | Gossiping with frie |

Remember that leisure activities which help you relax are not time-wasters. Sports activities are good for a person's physical fitness. In fact, these activities should be a part of your regular schedule. Reading good books that help enrich your knowledge is also a good activity that can replace your time-wasters. Spending time with family members or friends to build your relationship with them is also a very good activity.

- Estimate the amount of time spent in doing certain activities

To be able to schedule our activities and plan our days, we should know how to estimate how long each activity will take. This will also enable us to devote enough time for each activity.

## Let's Try This

Most people are late for appointments, meetings and deadlines because of poor time estimation. For example, you think you can reach the office at 8:00 a.m. when you leave the house at 7:15 a.m., but instead you arrive at 8:15 a.m. and you are late for work.

For this activity, you will need a clock to measure how much time it takes you to do the following activities. List down how many minutes it takes you to do the activities in the table on the next page:

| Acti vity |  |
| :--- | :--- |
| Taking a bath |  |
| Dressing up (which includes putting on <br> makeup, combing your hair, choosing the <br> clothes to wear, putting on your shoes, etc.) |  |
| Eating break fast |  |
| Doing house chores (cooking, washing the <br> dishes, etc.) |  |
| Going to the office, school, place of work, or <br> to a friend's house |  |

Take note of your answers. Consider the amount of time it takes you to prepare for the appointment or meeting you will attend. You may also use your answers to estimate what time you should start preparing before going to work or school.

## Let's Review

Why is it important to estimate the amount of time it takes to do certain activities?
$\qquad$
$\qquad$

Compare your answer with the one in the Answer Key on page 48.

## Let's Remember

To manage your time wisely, you should do the following.

- Prioritize.
- Organize and schedule your activities.
- Stop delaying and start doing.
- Avoid time-wasters.
- Estimate the amount of time needed to do specific activities.


## Let's See What You Have Learned

Congratulations! You have reached the final part of the lesson. All you have to do now is take a test. This will determine how much you have learned from this lesson. Good luck!

1. Explain the following tips on time management:
a. Prioritize ( 2 points)
$\qquad$
$\qquad$
$\qquad$
b. Organize and schedule your activities (2 points)
$\qquad$
$\qquad$
$\qquad$
c. Stop delaying and start doing (2 points)
$\qquad$
$\qquad$
$\qquad$
d. Avoid time-wasters (2 points)
$\qquad$
$\qquad$
$\qquad$
e. Estimate time spent doing certain activities (2 points)
$\qquad$
$\qquad$
$\qquad$
Compare your answers with those in the Answer Key on page 48. If your score is:

9-10 Excellent! You have understood the lesson well. Now turn to the next page for the next lesson.

6-8 Review the parts of the module which you did not understand.
$0-5 \quad$ You should study the whole lesson again.

## Lesson 3

## Reading Time Charts and Tables

Do the numbers and words that appear on flight, bus or ferry schedules confuse you? Do you find it hard to understand tables and charts for sunrise and sunset, or moonrise and moonset? If you do, then you should read on.

After studying this module, you should be able to:

- read and interpret timetables for transport schedules; and
- read and interpret timetables for sunrise and sunset, moonrise and moonset, etc.


## Let's Read

Mang Tomas has just retired from his work, and is planning to go on a vacation to Davao next week. It will be his first time to travel there. He was thinking whether he would travel by airplane or by ferry.

He decided to check the schedule for the flights and ferry trips bound for Davao. When he went to the ticketing office of an airline, it was still closed but the flight schedules were posted.


He looked at the flight schedules and found the trips from Manila to Davao. This is what he saw:

| Manila - Davao |  |  |  |
| :---: | :---: | :---: | ---: |
| FLT. NO. | FREQ. | ETD | ET A |
| 5J-961 | Daily | 0500 | 064 ( |
| 5J-963 | Daily | 1000 | 114 ( |
| 5J-967 | Daily | 1500 | 164 ( |

Mang Tomas could not understand the flight schedule. In his frustration, he decided to go to the ticketing office of a shipping company.

It was not a lucky day for Mang Tomas, for when he arrived at the ticketing office of the shipping company, it was also closed. But there was a timetable posted outside the office that showed the schedule of trips.


This is what Mang Tomas saw:

| From : MANILA |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| TO | VESSEL | DEPART URE |  |  | ARRIVAL |  |  |  |
|  |  | DAY | TIME | PIER | DAY | TIME | PIER |  |
| Coron | LIPA | Fri | 1900 | P4 | Sat | 0600 | Coron |  |
| Cotobato | SF1/8 | Fri | 1000 | P4 | Sun | 0600 | Polloc |  |
| Davao | SF6/10 | Mon | 1400 | P14 | Wed | 1600 | Sasa |  |
|  | SF1/8 | Wed | 1000 | P14 | Fri | 1700 | Sasa |  |
|  | SF6/10 | Sat | 0900 | P14 | Mon | 1900 | Sasa |  |
| Dipolog | SCHRT | Fri | 2359 | P14 | Sun | 1500 | Dip |  |

Again, Mang Tomas could not understand the timetable. The words and the numbers were all confusing to him. He went home unsure whether he would be able to go on his vacation trip to Davao next week.

Mang Tomas learned his lesson. The next day, he asked his Kumpareng Eddie to accompany and teach him how to read those confusing timetables.


Mang Tomas was able to reserve a plane ticket bound for Davao next week. He was able to plan his vacation early because he already knew how to read timetables for schedules of trips.

...now his only problem is how he can overcome his fear of riding an airplane!

1. Look at the timetables in the story on page 27. Can you understand the information given by these tables?
$\qquad$
$\qquad$
$\qquad$
2. Why is it important to know how to read timetables?
$\qquad$
$\qquad$
$\qquad$
Compare your answers with those in the Answer Key on page 49.

## Let's Learn

Let's take a look again at the timetables in the story. It will be easier to understand the timetables if you know the elements that compose them.

Timetable 1: Flight Schedule

| Manila - Davao |  |  |  |
| :---: | :---: | :---: | ---: |
| FLT. NO. | FREQ. | ETD | ET A |
| 5J-961 | Daily | 0500 | 064 ( |
| 5J-963 | Daily | 1000 | 114 ( |
| 5J-967 | Daily | 1500 | 164 ( |

Timetable 2: Sea Transport Schedule

| From : MANILA |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| TO | VESSEL | DEPARTURE |  |  | ARRIVAL |  |  |  |
|  |  | DAY | TIME | PIER | DAY | TIME | PIER |  |
| Coron | LIPA | Fri | 1900 | P4 | Sat | 0600 | Coron |  |
| Cotobato | SF1/8 | Fri | 1000 | P4 | Sun | 0600 | Polloc |  |
| Davao | SF6/10 | Mon | 1400 | P14 | Wed | 1600 | Sasa |  |
|  | SF1/8 | Wed | 1000 | P14 | Fri | 1700 | Sasa |  |
|  | SF6/10 | Sat | 0900 | P14 | Mon | 1900 | Sasa |  |
| Dipolog | SCHRT | Fri | 2359 | P14 | Sun | 1500 | Dip |  |

Elements of a transport timetable:

1. Point of Departure - this is the starting point of the trip. This may be the location of a bus terminal, pier or airport.
2. Destination - this is the end point of the trip. This may be the location of a bus terminal, pier or airport.
3. Time of Departure - this tells the time the trip or journey begins. Most timetables use the 24-hour clock, which you may not be very familiar with. You may want to look at the table in Lesson 1 on page 12 which lists the equivalent time between the 12 -hour and 24 -hour clocks.
4. Time of Arrival - this lists the time the trip or journey ends. This is the time you reach your destination.
5. Frequency - this tells how many trips there are for a certain route, and for a specific vessel, plane or bus. This is usually expressed in days or hours.
6. Flight Number and Name of Aircraft or Vessel - the flight number is a code for a trip with a specific route, frequency and schedule. The aircraft or vessel is also named.
7. Transport Rates - this tells how much a person will pay for a specific trip. The rates may vary according to the distance of the trip and the type of accommodation the passenger avails of.

## Let's Study and Analyze

Look at the timetable below.

| From Manila to | Flight Number/ <br> Aircraft | Frequency |  |
| :---: | :---: | :---: | :---: |
| Cebu | PR843 <br> (A330) | Daily |  |
| Cebu | PR847 <br> (B742) | Daily |  |
| Cebu | PR853 <br> (A330) | Daily |  |
| Cebu | PR867 <br> (A330) | TH/SU |  |
| Cebu | PR857 <br> (B742) | Daily |  |

Based on the timetable presented on page 30, let us try answering the following questions. The first one is already answered for you.

1. What is the flight number and aircraft traveling from Manila to Cebu which is scheduled to leave Manila on Thursday at 1:00 p.m. and arrive in Cebu at 2:15 p.m.?

Answer:

Flight number
PR867; Aircraft: A330
2. What is the frequency of flight number PR857? When is its departure and arrival times?
$\qquad$
3. If you are in Manila and you need to be in Cebu by 7:30 a.m. on Wednesday, what is the last flight you can take to get to Cebu on time?

Below are the answers for questions 2 and 3:
2. Answer:

Frequency: Daily
Time of Departure from Manila: 1200 H (12:00 p.m.)
Time of Arrival in Cebu: 1315H (1:15 p.m.)
3. Answer:

You should take flight number PR843, which travels daily to Cebu and arrives there at 6:15 a.m. If you take the flight from Manila on Wednesday at 5:00 a.m., you will arrive in Cebu by 6:15 a.m.

Let us look at another timetable below:

| From : MANILA |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| TO | VESSEL | DEPARTURE |  |  | ARRIVAL |  |  |  |
|  |  | DAY | TIME | PIER | DAY | TIME | PIER |  |
| Iligan | Medju | Mon | 1400 | P14 | Wed | 0700 | Iligan |  |
|  | SF5/9 | Thu | 1800 | P4 | Sat | 0700 | Iligan |  |
| Iloilo | SF1/8 | Wed | 1000 | P14 | Thu | 0500 | Loboc |  |
|  | SF1/8 | Fri | 1000 | P4 | Sat | 0500 | Loboc |  |
|  | SF6/10 | Sat | 0900 | P14 | Sun | 0500 | Loboc |  |
| Masbate | Schrt | Tue | 2300 | P14 | Wed | 1730 | Mas. |  |

Let us try answering the following questions. The first two items are done for you:

1. Which vessel leaves Manila at 9:00 a.m. and arrives in Iloilo on Sunday at 5:00 a.m.?

Answer: Vessel: SF6/10
2. How much will a passenger pay if he travels from Manila to Masbate and avails of a stateroom (Staterm)?

Answer: The rate for a stateroom for the trip from Manila to Masbate is $P 2,460$.
3. What is the last vessel you can take from Manila to Iligan if you need to be in Iligan by Thursday?
4. When will the vessel Sacred Heart (Schrt) arrive at the pier in Masbate?

Below are the answers for numbers 3 and 4.
3. Answer: You should take the vessel Medju which arrives in Iligan on Wednesday.
4. Answer: The vessel Sacred Heart (Schrt) will arrive Masbate on Wednesday at 5:30 p.m.

Let us look at another timetable below:
Timetable 3: Aircon Bus Schedules

| To: Baguio City |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From Caloocan | From Sampaloc | From Cubao |  |  |
| 7:00 a.m. | 5:30 a.m. | 4:00 a.m. | 1:00 p.m. |  |
| 9:00 a.m. | 7:30 a.m. | 5:00 a.m. | 2:00 p.m. |  |
| 2:20 p.m. | 1:00 p.m. | 6:00 a.m. | 3:00 p.m. |  |
| 4:20 p.m. | 3:00 p.m. | 7:00 a.m. | 4:00 p.m. |  |
|  |  | 8:00 a.m. | 5:00 p.m. |  |
|  |  | 9:00 a.m. | 6:00 p.m. |  |
|  |  | 10:00 a.m. | 7:30 p.m. |  |
|  |  | 11:00 a.m. | 11:00 p.m. |  |
|  |  | 12:00 p.m. | 11:30 p.m. |  |
|  |  |  | 12:00 a.m. |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| FARES (one-way only) |  |  |  |  |
| P 233.00 | P 233.00 | P 233.00 |  | = |
| TRAVEL TIME |  |  |  |  |
| 6-7 hrs. | 6-7 hrs. | 6-7 hrs. |  |  |

Let us try answering the following questions. Number 1 is given as an example:

1. How much is the fare from Pasay to Baguio?

Answer: P 244.00
2. How long is the travel time from Caloocan to Baguio City?
3. If you arrive at the Sampaloc Bus Terminal at 11:30 a.m., when is the soonest trip you can take bound for Baguio?

Below are the answers for 2 and 3:
2. Answer: The travel time is about 6 to 7 hours.
3. Answer: You can take the bus bound for Baguio at 1:00 p.m.

Answer the questions below based on the given timetable:

| From : MANILA |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :--- | :--- | :--- | ---: | :---: |
| TO | VESSEL | DEPARTURE |  | ARRIV AL |  |  |  |  |
|  |  | DAY | TIME | PIER | DAY | TIME | P |  |
| Bacolod | SF5/9 | Thu | 1800 | P4 | Fri | 1500 | Br |  |
| Cagayan <br> de Oro | SF5/9 | Wed | 2359 | P4 | Fri | 1159 | Pu |  |
|  | SF6/10 | Fri | 0900 | P14 | Sat | 1700 | Pu |  |
|  | SF5/9 | Sun | 2359 | P4 | Tue | 1159 | Pu |  |
| Cebu | SF1/8 | Mon | 2000 | P4 | Tue | 1800 | C |  |
|  | SF12 | Tue | 1500 | P4 | Wed | 1159 | C |  |
|  | SF12 | Thu | 1900 | P4 | Fri | 1600 | C |  |
|  | SF6/10 | Fri | 0900 | P14 | Sat | 0700 | C |  |
|  | SF12 | Sun | 0900 | P4 | Mon | 0600 | C |  |

a. If Mang Anding needs to attend a meeting in Cagayan de Oro on Saturday night, what is the last vessel he can take?
$\qquad$
b. When is Mang Anding's departure from Manila?
$\qquad$
c. If he is going to take the Suite accommodation, how much should he pay?
$\qquad$
d. When is the arrival of the vessel SF6/10 in Cebu coming from Manila?
$\qquad$
e. When did the vessel SF12 depart from Manila if it arrived in Cebu on Friday at 4:00 p.m.?
$\qquad$
Compare your answers with those in the Answer Key on page 49.

## Let's Study and Analyze

Let us now learn how to read timetables for sunrise and sunset, and moonrise and moonset. Below is a portion of a timetable for the rising and setting of the sun.

|  | Jan. |  | Feb. |  | Ma |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Day | Rise | Set | Rise | Set | Rise |  |
| 01 | 0625 | 1741 | 0629 | 1758 | 0617 |  |
| 02 | 0626 | 1741 | 0629 | 1759 | 0616 |  |
| 03 | 0626 | 1742 | 0629 | 1759 | 0616 |  |
| 04 | 0627 | 1743 | 0628 | 1759 | 0615 |  |
| 05 | 0627 | 1743 | 0628 | 1800 | 0615 |  |
| 06 | 0627 | 1744 | 0628 | 1800 | 0614 |  |
| 07 | 0628 | 1744 | 0628 | 1801 | 0613 |  |
| 08 | 0628 | 1745 | 0627 | 1801 | 0613 |  |
| 09 | 0628 | 1746 | 0627 | 1802 | 0612 |  |
| 10 | 0628 | 1746 | 0627 | 1802 | 0611 |  |

How do you get information from the timetable? Let us see what are the times for the rising and setting of the sun on March 3.

|  | Jan. |  | Feb. |  | N |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Day | Rise | Set | Rise | Set | Rise |
| 01 | 0625 | 1741 | 0629 | 1758 | 0617 |
| 02 | 0626 | 1741 | 0629 | 1759 | 0616 |
| 03 | 0626 | 1742 | 0629 | 1759 | 0616 |
| 04 | 0627 | 1743 | 0628 | 1759 | 0615 |

As shown by the arrows, on March 3, sunrise will be at 0616 hours (6:16 a.m.) and sunset will be at 1808 hours (6:08 p.m.).

How about the rising and setting of the sun on February 6?

|  | Jan. |  | Feb. |  | N |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Day | Rise | Set | Rise | Set | Rise |
| 01 | 0625 | 1741 | 0629 | 1758 | 0617 |
| 02 | 0626 | 1741 | 0629 | 1759 | 0616 |
| 03 | 0626 | 1742 | 0629 | 1759 | 0616 |
| 04 | 0627 | 1743 | 0628 | 1759 | 0615 |
| 05 | 0627 | 1743 | 0628 | 1800 | 0615 |
| 06 | 0627 | 1744 | 0628 | 1800 | 0614 |

As shown by the arrows, on Febraury 6, sunrise will be at 0628 hours (6:28 a.m.) and sunset will be at 1800 hours (6:00 p.m.).

Below is a timetable for the rising and setting of the moon.

|  | Apr. |  | May |  | Ju |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Day | Rise | Set | Rise | Set | Rise |
| 01 | 0325 | 1514 | 0326 | 1540 | 0414 |
| 02 | 0408 | 1607 | 0408 | 1634 | 0506 |
| 03 | 0451 | 1659 | 0452 | 1730 | 0603 |
| 04 | 0533 | 1753 | 0538 | 1829 | 0703 |
| 05 | 0616 | 1848 | 0628 | 1931 | 0807 |
| 06 | 0701 | 1945 | 0721 | 2034 | 0910 |

Identify when the moonrise and moonset will be on the specified dates below:

1. May 3 moonrise: $\qquad$ moonset: $\qquad$
2. July 4 moonrise: $\qquad$ moonset: $\qquad$
3. June 1 moonrise: $\qquad$ moonset: $\qquad$
4. April 6 moonrise: $\qquad$ moonset: $\qquad$
5. July 2 moonrise: $\qquad$ moonset: $\qquad$
Compare your answers with those in the Answer Key on page 49.

## Let's Remember

- By knowing how to read transport timetables, you can easily determine the details of a scheduled trip.
- By knowing how to read timetables for sunrise and sunset, and moonrise and moonset, fishermen can adjust their fishing schedules appropriately.


## Let's See What You Have Learned

Congratulations! You have reached the final part of the lesson. All you have to do now is answer the following questions. This will determine how much you have learned from this lesson. Good luck!

1. Answer the questions below based on the timetable:

| Manila - Cebu |  |  |  |
| :---: | :---: | :---: | :---: |
| FLT. NO. | FREQ. | ETD | ETA |
| 5J-559 | Daily | 0500 | 0610 |
| 5J-561 | Daily | 0700 | 0810 |
| 5J-563 | Daily | 0900 | 1010 |
| 5J-565 | Daily | 1100 | 1210 |
| 5J-567 | Daily | 1300 | 1410 |

a. What is the departure time of flight number $5 \mathrm{~J}-565$ from Manila?
(1 point)
$\qquad$
b. What is the flight number of the plane from Manila which will arrive in Cebu at 2:10 p.m.? (1 point)
$\qquad$
c. What is the flight number of the plane which will depart from Manila at 7:00 a.m.? (1 point)
d. What is the arrival time of flight number 5J-559 in Cebu?
(1 point)
2. Answer the questions below based on the given timetable.

Timetable: Sea Transport Schedule

| From : MANILA |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TO | VESSEL | DEPARTURE |  |  | ARRIVAL |  |  |  |  |
|  |  | DAY | TIME | PIER | DAY | TIME | PIER |  |  |
| Puerto <br> Princesa | LIPA | Fri | 1900 | P4 | Sat | 1800 | PPS |  |  |
| Roxas | LIPA | Mon | 1800 | P4 | Tue | 1230 | Culasi |  |  |
|  | LIPA | Wed | 1400 | P4 | Thu | 0800 | Culasi |  |  |
|  | Medju | Sat | 1159 | P4 | Sun | 0830 | Culasi |  |  |
| Surigao | SF1/8 | Mon | 2000 | P4 | Wed | 0400 | Sur |  |  |

a. When will the vessel bound for Surigao depart from Manila? (1 point)
b. If Aling Nena takes the vessel Medju bound for Roxas, how much does she need to pay for a cabin? (1 point)
$\qquad$
c. When will the vessel LIPA arrive at Puerto Princessa? (1 point)
d. What is the name of the vessel traveling from Manila to Surigao? (1 point)
3. Using the timetable below, give the times for the moonrise and the moonset for the following dates. (4 points)

Timetable: Moonrise and Moonset

|  | Jan. |  | Feb. |  | Mar. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Day | Rise | Set | Rise | Set | Rise |  |
| 01 | 0145 | 1346 | 0254 | 1432 | 0226 | 1 |
| 02 | 0233 | 1426 | 0344 | 1519 | 0314 | 1 |
| 03 | 0321 | 1507 | 0433 | 1608 | 0401 | 1 |
| 04 | 0410 | 1550 | 0521 | 1658 | 0447 | 1 |
| 05 | 0459 | 1636 | 0607 | 1749 | 0532 | 1 |
| 06 | 0549 | 1724 | 0652 | 1841 | 0615 | 1 |
| 07 | 0637 | 1813 | 0736 | 1932 | 0657 | 1 |

a. February 3 moonrise: $\qquad$ moonset:
b. April 6 moonrise: $\qquad$ moonset:
c. January 5 moonrise: $\qquad$ moonset: $\qquad$
d. March 2 moonrise: moonset:

Compare your answers with those in the Answer Key on pages 49-50.
If your score is:
10-12 Excellent! You have understood the lesson well.
7-9 Review the parts of the lesson which you did not understand.
0-6 You should study the whole lesson again.

## Let's Sum Up

- Time measurement units help us measure how long a certain event took place, takes place or will take place.
- The 24-hour clock is more convenient to use in time interval computations.
- By knowing how to interpret transport timetables, you can easily determine the details of a scheduled transport trip.
- By knowing how to read timetables for sunrise and sunset, and moonrise and moonset, fishermen can adjust their fishing schedules appropriately.
- Time management helps us to organize our daily activities, and prioritize the more important ones over those which are less important.


## Un What Have You Learned?

Congratulations for making it this far! You have reached the final part of the module. All you need to do is take one last test. This will determine how much you have learned from the module. Do your best... Good luck!

1. Mang Vic started painting the roof at $1: 37 \mathrm{p} . \mathrm{m}$. and finished at $6: 12$ p.m. How long did Mang Vic paint the roof? (2 points)

## Solution:

| Hours | Minutes |
| :--- | :--- |
|  |  |
|  |  |
|  |  |

2. Mang Joey took a bus from Manila bound for Zambales. The bus left Manila at 0945 and arrived in Zambales at 1505 . How long was Mang Joey's trip? (2 points)

## Solution:

| Hours | Minutes |
| :--- | :--- |
|  |  |
|  |  |
|  |  |

3. Aling Precy needs to take medicine every 3 hours and 30 minutes. She took her first dose of medicine at 0845 . What would be her schedule for taking the next 2 doses of medicine? (4 points)

## Solution:

Schedule for second intake of medicine: (2 points)

|  | Hours | Minutes |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Schedule for third intake of medicine: (2 points)

|  | Hours | Minutes |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

4. What are the bad habits that Filipinos need to change, so that they can practice good time management? Give ways on how to eliminate these bad habits. (3 points)
a. $\qquad$
$\qquad$
b. $\qquad$
$\qquad$
c. $\qquad$
$\qquad$
5. Look at the timetable below:

Sea Transport Schedule

| From : MANILA |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| TO | VESSEL | DEPARTURE |  |  | ARRII |  |
|  |  | DAY | TIME | PIER | DAY | TIME |
| Nasipit | SF1/8 | Mon | 2000 | P4 | Wed | 1000 |
| Ozamis | Medju | Mon | 1400 | P14 | Wed | 1159 |
|  | SF5/9 | Thu | 1800 | P4 | Sat | 1159 |
| Palompon | Schrt | Tue | 2300 | P14 | Thu | 0330 |

Based on the table above, answer the following questions:
a. Which vessel leaves Manila and arrives in Ozamis on Saturday? (1 point)
b. How much will a passenger pay if he travels from Manila to Nasipit and avails of a Suite? (1 point)
c. To which pier should you go if you are taking the trip bound for Ozamis on Monday? (1 point)
d. When will the vessel Sacred Heart (Schrt) arrive in Palompon? (1 point)

Compare your answers with those in the Answer Key on pages 50-51. If your test score is:

13-15 Excellent! You have understood the lessons from this module very well. You may now study the next module.

8-12 Review the lessons which you did not understand.
0-7 You have to study this module again.

## Answer Key

## A. Let's See What You Already Know (pages 2-4)

1. Aling Gina did the laundry in 2 hours and 45 minutes.

Solution:
Time finished: 5:10
Time started: 2:25

Subtract 1 hour

|  | Hours |
| :---: | :---: |
| $5-1$ | $10+60 \longleftarrow$ |
| 2 | 25 |
|  |  |


| Hours | Minutes |
| :---: | :---: |
| 4 | 70 |
| -2 | -25 |
| 2 | 45 |

2. Mang Ramon worked in the farm for 3 hours and 30 minutes.

## Solution:

Time finished: 1420 hours
Time started: 1050 hours

| Subtract 1 hour | Hours | Minutes |
| :---: | :---: | :---: |
|  | $\rightarrow \quad 14-1$ | $20+60$ |
|  | 10 | 50 |
|  |  |  |


| Hours | Minutes |
| :---: | :---: |
| 13 | 80 |
| -10 | -50 |
| 3 | 30 |

3. Nelson should take medicine at 1150 hours and then at 1420 hours.

## Solution:

Schedule for second intake of medicine:

|  | Hours | Minutes |  |
| :--- | :---: | :---: | :---: |
|  | 9 | 20 | Add 30 mi |
|  | 2 | 30 |  |

Schedule for third intake of medicine:

|  | Hours | Minutes |  |
| :---: | :---: | :---: | :---: |
|  | 11 | 50 | Add 30 mi |
|  | 2 | 30 |  |

There is no such time in the 24 -hour clock. You need to subtract 60 from the minutes value and add 1 hour to the hour value.

|  | Hours | Minutes |  |
| :---: | :---: | :---: | :---: |
|  | 13 | 80 | subtract 60 |
| Add 1 hour | 1 | $60 \longleftarrow$ |  |

4. A person who is in the habit of delaying their work runs the risk of not being able to finish it on time. Or, if he/she is able to finish it, the quality of his/her work will most probably be poor. Delay in one's work can cause problems for other people too. A person must schedule his/her activities, so that his/her work can be done well.
5. a. The aircraft is B737 and the flight number is PR126.
b. Time of arrival is 0620 hours.
c. Destination: Zamboanga
d. Time of departure: 1740 hours or 5:40 p.m.
B. Lesson 1

Let's Review (page 7)
Sample answer:
Time measurement is important because it is used as a basis for arranging or scheduling people's activities. Time measurements can quantify how long in the past or how long in the future a certain event occurred or will occur.

## Let's Review (page 11)

1. Answer: 2 hours and 15 minutes

| Hours | Minutes |
| :---: | :---: |
| 4 | 40 |
| -2 | -25 |
| 2 | 15 |

2. a. Mang Pedro's work in the morning: 4 hours and 30 minutes

Solution:

Subtract 1 hour |  | Hours | Minutes |
| :---: | :---: | :---: |
|  | $12-1$ |  |
| 7 | $00+60 \longleftarrow$ |  |
|  |  | 30 |

| Hours | Minutes |
| :---: | :---: |
| 11 | 60 |
| -7 | -30 |
| 4 | 30 |

b. Mang Pedro's work in the afternoon: 5 hours and 40 minutes
c. Total time Mang Pedro worked: 10 hours and 10 minutes

## Solution:

| Hours | Minutes |
| :---: | :---: |
| 4 | 30 |
| +5 | +40 |
| 9 | 70 |


| Hours | Minutes |
| :---: | :---: |
| 9 | 70 |
| +1 | -60 |
| 10 | 10 |

Let's Review (pages 13-14)

1. Answer: 8 hours and 20 minutes

Solution:

| Hours | Minutes |
| :---: | :---: |
| 18 | 45 |
| -10 | -25 |
| 8 | 20 |

8 hrs 20 mins
2. Answer: Mang Berto worked for 2 hours and 55 minutes

Subtract 1 hour \begin{tabular}{c|c|c}
\cline { 2 - 3 } \& Hours \& Minutes <br>

\cline { 2 - 3 } \& | $17-1$ |
| :---: |
| 14 | \& | $10+60$ |
| :---: |
|  |$|$

\end{tabular}

| Hours | Minutes |
| :---: | :---: |
| 16 | 70 |
| -14 | -15 |
| 2 | 55 |

2 hrs 55 mins
Let's Review (pages 15-16)

1. Schedule for second intake of medicine:

| Hours | Minutes | Second intake <br> medicine |
| :---: | :---: | :---: |
| 07 | 15 |  |
| 3 | +30 |  |
| 10 | 45 | 1045 hours |

Schedule for third intake of medicine:

| Hours | Minutes | Third intake 01 <br> medicine |
| :---: | :---: | :---: |
| 10 | 45 |  |
| +3 | +30 |  |
| 13 | 75 | 1375 hours |

Simplifying:

Add 1 hour

| Hours | Minutes |
| :---: | :---: |
| 13 |  |
| +1 | 75 |
| 14 | $-60 \quad 15$ |

## Let's See What You Have Learned (pages 16-17)

1. Answer: 2 hours and 45 minutes

Subtract 1 hour

| Hours | Minutes |
| :---: | :---: |
| $5-1$ | $10+60 \longleftarrow$ |
| 2 | 25 |
|  |  |


| Hours | Minutes |
| :---: | :---: |
| 4 | 70 |
| -2 | -25 |
| 2 | 45 |

2. Answer: 5 hours and 20 minutes

Subtract 1 hour

| Hours | Minutes |
| :---: | :---: |
| $17-1$ | $05+60 \longleftarrow$ |
| 11 | 45 |
|  |  |


| Hours | Minutes |
| :---: | :---: |
| 16 | 65 |
| -11 | -45 |
| 5 | 20 |

3. Schedule for second intake of medicine: 1250 hours

|  | Hours | Minutes |
| :--- | :---: | :---: |
|  | 09 | 20 |
|  | +3 | 50 |
|  | 12 |  |

Schedule for third intake of medicine: 1620 hours

|  | Hours | Minutes |  |
| :---: | :---: | :---: | :---: |
|  | 12 | 50 | Add 3 3 hours |
|  | 15 | +3 |  |
|  |  |  |  |
|  |  |  |  |

Simplifying:

| Hours | Minutes |
| :---: | :---: |
| 15 | 80 |
| +1 | -60 |
| 16 | 20 |

## C. Lesson 2

Let's Review (page 20)

- I would suggest that Aling Lolit schedule her activities. She should let go of the other activities which are not very important so that she could focus her time and attention on the more important ones.

Let's Review (page 24)

- It is important to estimate the amount of time it takes to do certain activities so that you can plan and accomplish your activities promptly and properly. A good estimation of time helps you make a practical schedule.

Let's See What You Have Learned (page 25)

1. a. Activities that are more important should be done first. These important activities should be distinguished from activities which may not be important.
b. Once the important activities are identified, a schedule should be made to accommodate these important activities.
c. The most crucial part of scheduling is implementation. You must be able to discipline yourself to follow the arranged schedule. You must be able to break the mañana habit.
d. Avoid activities that are not productive. Try to identify the activities that you do which don't really contribute to your growth and development. Once you have identified these activities, try to avoid doing them and replace them with activities that will help you develop as a person.
e. Time estimation is important in order to avoid being late for appointments, meetings, or deadlines. By monitoring the time you spend doing certain activities, you can make good time estimations.

## Let's Review (page 29)

Here are some sample answers. You can show your answers to your Instructional Manager for additional feedback.

1. I can understand some parts of the table, but I need some help in understanding the other parts. The many codes and numbers that appear on the timetable look confusing.
2. Knowing how to read timetables is important because it can inform you of available transportation at the most convenient time.

Let's Review (page 34)
a. Mang Anding should take the vessel SF6/10.
b. On Friday at 0900 hours (9:00 a.m.)
c. He should pay P 5,080.
d. Arrival is on Saturday at 0700 hours (7:00 a.m.)
e. On Thursday at 1900 hours (7:00 p.m.)

Let's Review (page 36)

1. moonrise: 0452 hours moonset: 1730 hours
2. moonrise: 0756 hours moonset: 2104 hours
3. moonrise: 0414 hours moonset: 1712 hours
4. moonrise: 0701 hours moonset: 1945 hours
5. moonrise: 0546 hours moonset: 1908 hours

Let's See What You Have Learned (pages 37-39)

1. a. 1100 hours
b. Flight number 5J-567
c. Flight number 5J-561
d. 0610 hours
2. a. On Monday at 2000 hours
b. P 1,425
c. On Saturday at 1800 hours
d. SF1/8
3. a. moonrise: 0433 moonset: 1608
b. moonrise: 0701 moonset: 1945
c. moonrise: 0459 moonset: 1636
d. moonrise: 0314 moonset: 1450
D. What Have You Learned? (pages 40-42)
4. Mang Vic painted the roof for 4 hours and 35 minutes.

Subtract 1 hour

| Hours | Minutes |
| :---: | :---: |
| $6-1$ | $12+60 \longleftarrow$ |
| 1 | 37 |
|  |  |


| Hours | Minutes |
| :---: | :---: |
| 5 | 72 |
| -1 | -37 |
| 4 | 35 |

2. Mang Joey's trip took 5 hours and 20 minutes.

Subtract 1 hour

| Hours | Minutes |
| :---: | :---: |
| $15-1$ | $05+60$ |
| 09 | 45 |
|  |  |


| Hours | Minutes |
| :---: | :---: |
| 14 | 65 |
| -09 | -45 |
| 5 | 20 |

3. Schedule for $2^{\text {nd }}$ intake of medicine: 1215 hours

| Add 3 hours | Hours | Minutes | Add 30 minı |
| :---: | :---: | :---: | :---: |
|  | 08 | 45 |  |
|  | + 3 | + 30 |  |
|  | 11 | 75 |  |


| Hours | Minutes |
| :---: | :---: |
| 11 | 75 |
| +1 | -60 |
| 12 | 15 |

Schedule for $3^{\text {rd }}$ intake of medicine: 1545 hours

|  | Hours | Minutes |  |
| :--- | :---: | :---: | :---: |
|  | 12 | 15 |  |
| Add 3 hours | $\longrightarrow+3$ | +30 | Add 30 min |
|  | 15 | 45 |  |

4. a. Mañana habit - Filipinos need to change their habit of putting off for tomorrow what they can do today. They need to discipline themselves to do the important things on time.
b. Gambling - This is an activity that many Filipinos engage in. People who get hooked on gambling often forget their other duties and responsibilities. People should avoid getting addicted to gambling if they want to be productive members of their families and communities.
c. Showing up late for meetings and appointments - Most Filipinos always come late for meetings, thinking that meetings don't start immediately anyway. Filipinos should be more time conscious and punctual, considering that they waste the time of other people who come on time for appointments or meetings.
5. a. SF5/9
b. $P 4,750$
c. You should go to Pier 14 (P14)
d. On Thursday at 0330 hours

## Glossary

Mañana habit The habit of procrastination or postponing till tomorrow what can be done today. (Mañana is the Spanish word for "tomorrow.")

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