## CH 1

## Financial Mathematics

(Answers)


Ministry of Education


# Financial Mathematics 

Secondary Level


# Financial Mathematics (1) 

## مال111

## For Secondary Education

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H.M. SHAIKH HAMAD BIN ISA AL KHALIFA

THE KING OF THE KINGDOM OF BAHRAIN
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Studying the financial mathematics " 1 " course, the student acquires many skills that qualify him to join university education and the requirements of the labor market.

After studying the financial mathematics course, the student acquires many important skills and competencies in the commercial field. Among the competency's student acquires is the transfer of foreign currencies to local and local to foreign currencies. In addition to calculating the salaries of employees and workers' wages in all possible ways.

There are also other competencies such as pricing the goods in different ways, as well as preparing the invoice in the two cases of delivery of the goods in the place of the buyer or the seller's shop. There is also the topic of simple interest that paves the way for the study of financial mathematics" 2 ".

The topic that the student studies in this course touch on all aspects of life that are useful in the scientific and practical side.

At the end of the course, students should be able to:

- Calculate Currency Exchange.
- Compute the payroll of labors and workers.
$>$ Calculate the Pricing Goods, Discount and Prepare the Invoice.
- Calculate simple interest and discount.

Where possible, we have included graphic illustrations, mind maps, tables and diagrams to assist the students in their learning. We have also highlighted the meaning of certain concepts through the use of specific symbols called icons. The purpose of these icons is to emphasize and draw their attention to important aspects of the work and to highlight the activities. The various icons have the following meanings:



# Review Numbers and Currency Exchange 



### 1.1 Write the Whole Numbers

## Introduction

Suppose you are in sales meeting and the marking manager presents a report of the sales for the previous quarter, the projected sales for the current quarter, and the projected sales for the entire year, how would you record these figures in the notes you are taking for the meeting? You will need to have a mental picture of the place-value structure of our number system.

## Read Whole Numbers:




## How to write whole number?

a- Begin recording digits from left to right.
b- Insert a comma at each period name.
c- Every period after the first period must have three digits. Insert zeros as necessary.

## Read decimal numbers:

| $\mathbf{0 . 1}$ | Tenths |
| :--- | :--- |
| $\mathbf{0 . 0 1}$ | Hundredths |
| $\mathbf{0 . 0 0 1}$ | Thousandths |
| $\mathbf{0 . 0 0 0 1}$ | Ten -thousandths |
| $\mathbf{0 . 0 0 0 0 1}$ | Hundred-thousandths |
| $\mathbf{0 . 0 0 0 0 0 1}$ | Millionths |
| $\mathbf{0 . 0 0 0 0 0 0 1}$ | Ten-Millionths |
| $\mathbf{0 . 0 0 0 0 0 0 1}$ | Hundred- Millionths |

## How to write decimal number?

a- Read or write the whole- number part to the left of the decimal point.
b- Use the word and for the decimal point (.).
c- Read or write the decimal part to the right of the decimal point.
d- Read or write the place name of the rightmost digit.

## Example 1-1-1:

- Write the number $\mathbf{1 , 8 9 0 , 5 1 2 . 6 2 7}$ in letters:

Millions Thousands Units Point Tenths Hundredths Thousandths

|  |  | $\mathbf{1}$ | $\mathbf{8}$ | $\mathbf{9}$ | $\mathbf{0}$ | $\mathbf{5}$ | $\mathbf{1}$ | $\mathbf{2}$ | $\cdot$ | $\mathbf{6}$ | $\mathbf{2}$ | $\mathbf{7}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

One million, eight hundred ninety thousand, five hundred twelve and six hundred twenty-seven thousandths.

## Example 1-1-2:

- Write the following numbers in letters:
a-47,203 $=$ Forty-seven thousand, two hundred three.
b- $5,821,496=$ Five million, eight hundred twenty-one thousand, four hundred ninety-six.
$\mathrm{c}-0.375=$ Three hundred seventy-five thousandths.
d- $4.6=$ Four and six-tenths.
$\mathrm{e}-\$ 234.75=$ Two hundred thirty-four dollar and seventy-five cents.
$\mathrm{f}-\mathrm{BD} 20.825=$ Twenty dinar and eight hundred twenty -five fils.


## Exercises 1-1-1:

1- Write the word name for these numbers:
a) 150
One Hundred and Fifty
b) 8921
Eight thousand, nine hundred twenty-one
c) 1085514
d) 40.451
e) BD 0.025
One million, eighty-five thousand, five hundred fourteen Forty and four hundred fifty-one thousandths
f) 8.15
g) 1225.4211 Twenty-five fils
Eight and fifteen hundredths
One thousand two hundred twenty-five and four thousand two hundred eleven tenthousandths
h) BD 516800
Five hundred sixteen thousand eight hundred dinar
i) BD 762.150
Seven hundred sixty-two dinar and One Hundred Fifty fils
j) $\$ 175.64$ One hundred seventy-five dollar and sixty-four cents

2- Write the number of the following:
a) Twenty billion, fifeen million, two hundred forty. $20,015,000,240$
b) Ten billion, five hundred forty-two million,six hundred thounsand.
c) Eight and tenths. 8.1
d) Five hunderd thirty nine thousandths. 0.539
e) One hundred thiry-seven and twenty three-hundredths. 137.23
a- Whole numbers and the place-value system
This text will prepare you to enter the business world with mathematical tools for a variety of career paths. The business topics are based on mathematical knowledge, so it is important to begin with reviewing the mathematical and problem-solving skills that you will need for the coming chapters.

In most businesses, arithmetic computations are done on a calculator or computer, even so, every businessperson needs a thorough understanding of mathematical concepts and a basic number sense to make the best use of a calculator.

Our system of numbers, the decimal-number system, uses ten symbols called digits: 0 , $1,2,3,4,5,6,7,8,9$, numbers in the decimal system can have one or more digits. Each digit in a number that contains two or more digits must be arranged in a specific order to have the value we intend for the number to have, one set of numbers in the set of whole numbers: $0,1,2,3,4$.

Most business calculation involving whole numbers include one or more of four basic mathematical operations: addition, subtraction, multiplication and division.

## What business situations are required to read and write whole numbers?

Communication is one of the most important skills of successful businesspersons; both the giver and the receiver of communication must have the same interpretation for the communication to be effective. That is why understanding terminology and the meanings of symbolic representations is an important skill.

Beginning with the ones place on the right, the place values are grouped in groups of three places. Each group of three place values is called a period, each period has a name and a ones place, a tens place, and a hundred place, in a number, the first period from the left may have less than three digits. In many cultures, the periods are separated with commas.

Reading number is based on an understanding of the place-value system that is part of our decimal-number system. The figure below shows that system applied to the number.

| Units | One | 1 |
| :--- | :--- | :--- |
|  | Ten | 10 |
|  | Hundred | 100 |
| Thousands | Thousand | 1,000 |
|  | Ten thousand | 10,000 |
|  | Hundred thousand | 100,000 |
| Millions | Million | $1,000,000$ |
|  | Ten Million | $10,000,000$ |
|  | Hundred Million | $100,000,000$ |
| Billions | Billion | $1,000,000,000$ |
|  | Ten Billion | $10,000,000,000$ |
|  | Hundred Billion | $100,000,000,000$ |
| Trillions | Trillion | $1,000,000,000,000$ |
|  | Ten Trillion | $10,000,000,000,000$ |
|  | Hundred Trillion | $100,000,000,000,000$ |



## Example 1-2-1:

- Find the place value of the number $381,345,287,369,021$.



## Exercises 1-2-1:

1-Find the place value of the following numbers:

$$
\begin{aligned}
& \text { a- } 56,326 \\
& \text { b- } 8,971,456 \\
& \text { c- } 16,080,573 \\
& \text { d- } 789,454,002 \\
& \text { e- } 3,765,010,783 \\
& \text { f- } 54,079,887,546 \\
& \text { g- } 200,471,050,120 \\
& \text { h- } 4,156,966,432,251 \\
& \text { i- } 80,879,674,366,377 \\
& \text { j- } 100,025,912,706,454
\end{aligned}
$$

| Trillions |  |  | Billions |  |  | Millions |  |  | Thousands |  |  | Units |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $$ |  |  | $\begin{aligned} & \overline{0} \\ & \bar{\sim} \end{aligned}$ |  |  | $\begin{aligned} & \frac{\tilde{0}}{\bar{z}} \\ & \end{aligned}$ | $\begin{aligned} & \text { च } \\ & \text { un } \\ & 0 \\ & 0 \\ & \tilde{J} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  | $\begin{aligned} & 8 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & y \end{aligned}$ | $\stackrel{\text { E }}{\bullet}$ | $\stackrel{\square}{0}$ |
| a. |  |  |  |  |  |  |  |  |  | 5 | 6 | 3 | 2 | 6 |
| b. |  |  |  |  |  |  |  | 8 | 9 | 7 | 1 | 4 | 5 | 6 |
| c. |  |  |  |  |  |  | 1 | 6 | 0 | 8 | 0 | 5 | 7 | 3 |
| d. |  |  |  |  |  | 7 | 8 | 9 | 4 | 5 | 4 | 0 | 0 | 2 |
| e. |  |  |  |  | 3 | 7 | 6 | 5 | 0 | 1 | 0 | 7 | 8 | 3 |
| f. |  |  |  | 5 | 4 | 0 | 7 | 9 | 8 | 8 | 7 | 5 | 4 | 6 |
| g . |  |  | 2 | 0 | 0 | 4 | 7 | 1 | 0 | 5 | 0 | 1 | 2 | 0 |
| h. |  | 4 | 1 | 5 | 6 | 9 | 6 | 6 | 4 | 3 | 2 | 2 | 5 | 1 |
| i. | 8 | 0 | 8 | 7 | 9 | 6 | 7 | 4 | 3 | 6 | 6 | 3 | 7 | 7 |
| j. | 10 | 0 | 0 | 2 | 5 | 9 | 1 | 2 | 7 | 0 | 6 | 4 | 5 | 4 |

## b- Decimals and the place-value system

Decimals are another way to write fractions. We use decimals in some form every day. Even our money system is based on decimals. Calculators use decimals, and decimals are the basis of percentages, interest, markup, and markdowns.
One money system, which is based on the dollar dinars or riyal, uses the decimal system. In the decimal system, as you move right to left from one digit to the next, the place value of the digit increases by 10 times (multiply by 10). As you move left to right from one digit to the next, the place value of the digit gets 10 times smaller (divide by 10). The place value of the digit to the right of the ones place is 1 divided by 10 .

There are several ways of indicating 1 divided by 10 , in the decimal system, we write 1 divided by 10 as 0.1 .

```
1
```

|  | Hundred -millionths | 0.00000001 |
| :---: | :--- | :--- |
|  | Ten-millionths | 0.0000001 |
|  | Millionths | 0.000001 |
|  | Hundred-thousandths | 0.00001 |
|  | Ten-thousandths | 0.0001 |
|  | Thousandths | 0.001 |
|  | Hundredths | 0.01 |
|  | Tenths | 0.1 |
| Thits | One | 1 |
|  | Tens | 10 |
|  | Hundred | 100 |
| Millions | Thousand | 1,000 |
|  | Ten Thousand | 10,000 |
|  | Hundred Thousand | 100,000 |
| Billions | Millions | 1000,000 |
|  | Ten Million | $10,000,000$ |
|  | Hundred Million | $100,000,000$ |
| Trillions | Billions | $1000,000,000$ |
|  | Ten Billion | $10,000,000,000$ |
|  | Hundred Billion | $100,000,000,000$ |
|  | Trillions | $1000,000,000,000$ |
|  | Ten Trillion | $10,000,000,000,000$ |
|  | Hundred Trillion | $100,000,000,000,000$ |



## Example 1-2-1:

- Find the place value of the number $12,315.6274$

| Millions |  |  | Thousands |  |  | Units |  |  | Decimal System |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\frac{\%}{z}$ |  |  |  |  | $\stackrel{\text { en }}{\text { ¢ }}$ | $\stackrel{0}{0}$ |  |  | $\underset{\sim}{n}$ |  |  |  |
|  |  |  |  | 1 | 2 | 3 | 1 | 5 | . | 6 | 2 | 7 | 4 | 0 |

## Exercises 1-2-2:

- Find the place value of the following numbers:
a- 326.0153
b- 8,670.451
c- $15,480.25$
d- $6,450,872.125$

Millions Thousands Units
Hundred millions
Ten millions
Million
Hundred thousands
Ten thousands
Thousand
Hundred
Tens
One
Decimal point
Tenths
Hundredths
Thousandths
Ten-thousandths
Hundred-thousandths

| a. |  |  |  |  |  |  | 3 | 2 | 6 | . | 0 | 1 | 5 | 3 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| b. |  |  |  |  |  | 8 | 6 | 7 | 0 | . | 4 | 5 | 1 |  |  |
| c. |  |  |  |  | 1 | 5 | 4 | 8 | 0 | . | 2 | 5 |  |  |  |
| d. |  |  | 6 | 4 | 5 | 0 | 8 | 7 | 2 | . | 1 | 2 | 5 |  |  |

### 1.3 Round Whole Number

In the business world and in real life situations, sometimes we want to round numbers. The rounded number is an approximate number that is obtained from rounding an exact amount.

So often rough or rounded figures are used. A rounded number is not an exact amount. It is an approximate number instead. Rounding a number to a specific place, which may be the first left in a number.
a. Find the digit in the specified place (first dignitaries, ten, hundred, thousand etc.).
b. Look at the next digit to the right

- If this digit is less than 5, place it and all digits to its right with zeros.


## Example 1-3-1:

- Round 2647 to the nearest hundred.

- If this digit is 5 or more, add 1 to the digit in the specified place with zeros.


## Example 1-3-2:

- Round 2667 to the nearest hundred.



## Example 1-3-3:

- Round 37,439 to first digit.

- The first digit on the left is 3 .
- The next digit to the right is 7 .
- 7 is more than 5 , so increase $3+1$ to get 4 and replace all digits to the right of 4 with zeros.


## Example 1-3-4:

- Round 34,439 to first digit.

| 3 | 4 | , | 4 | 3 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ |
| 3 | 0 | , | 0 | 0 | 0 |

- The first digit on the left is 3 .
- The next digit to the right is 4 .
- 4 is less than 5 , so replace it to 3 and all digits to its right zeros.
* If this digit is more than 5 , add 1 to the digit in the specified place with zeros.
* If this digit is less than $\mathbf{5}$, replace it and all digits to its right with zeros.


## Exercises 1-3-1:

- Find the place value of the number $381,345,287,369,021$.

| Trillions |  |  | Billions |  |  | Millions |  |  | Thousands |  |  | Units |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 흘 |  |  | $\frac{\text { 흘 }}{\underline{\bar{\omega}}}$ |  |  | $\begin{aligned} & \text { 兰 } \\ & \stackrel{\overline{\underline{\Sigma}}}{ } \end{aligned}$ | $\begin{aligned} & \text { 흔 } \\ & \text { 흘 } \\ & \text { 포 } \end{aligned}$ |  |  |  | $\underset{\sim}{\underline{0}}$ | - |
| 3 | 8 | 1 | 3 | 4 | 5 | 2 | 8 | 7 | 3 | 6 | 9 | 0 | 2 | 1 |

## Round Decimals

As with whole numbers, we often need only an approximate amount. The process for rounding decimals is similar to rounding whole numbers.

## How to round to a specified decimal place?

a. Find the digit in the specified place (first dignitaries, ten, hundred, thousand etc.).
b. Look at the next digit to the right

- If this digit is less than 5 , eliminate it and all digits to its right with zeros.


## Example 1-3-5:

- Round 17.3234 to the nearest hundredths.

- If this digit is 5 or more, add 1 to the digit in the specified place, and eliminate all digits to its right.


## Example 1-3-6:

Round 17.3284 to the nearest hundredths.


## Example 1-3-7:

- Round the number to the specified place.
a) 14.342 to the nearest tenth.

$$
\begin{array}{cccccc}
1 & 4 & \mathfrak{j} & 3 & 4 & 2 \\
1 & \downarrow & \downarrow & \downarrow & & \\
4 & \bullet & 3 &
\end{array}
$$

b) $\$ 28.465$ to the nearest cent.

c) $\mathrm{BD} 1,235.25124$ to the nearest fils.


## Exercises 1-3-2:

- Round the following numbers:
a) $3,784.921$ to the nearest thounsand. $4,000.000$
b) 52,973 to the nearest hundred.

53,000
c) 6.098 to the nearest ten. 10.000
d) $29,000,459$ to the first digit.
e) $\$ 493.9126$ to nearest dollar.
f) 42.3784 to the nearest thousand. $\$ 494.000$

The history of currency in any country is an integral part of the history of that country. It reflects not only the different stages of that history, but also the strong relations enjoyed by the country with many different countries in the world.

Kingdom of Bahrain was the first country in the Gulf to recognize the use of coinage as a means of enhancing trading and financial activity in the very early days. Indeed, the use of coinage made a strong contribution to Bahrain's early reputation as a commercial center. Strategically located on one of the world's oldest trading routes between East and West, Kingdom of Bahrain had already become an important transit point offering traders a safe anchorage and a reliable supply of food and water, while its coastal waters were the source of the world's finest natural pearls. Over the centuries, practically every form of money passed through the hands of Bahrain's merchants, enabling Bahrain to claim a unique economic and political status in the region. The use of many forms of money continued until 1965 when the Kingdom of Bahrain introduced its own currency, the Bahraini Dinar (BHD). The Government in Bahrain is eager to encourage and support commerce and finance, the country was ideally placed to emerge as the region's major international financial center.


## Reading 1-4-1:

In 1964, the Bahrain Currency Board was established and issued a new family of Bahraini Dinar banknotes and coins on $7^{\text {th }}$ October 1965. Read more about currency issue.


## The Currency System:

Most countries in the world have their own currency system. This system means that every country has its own money that is divided into smaller parts. Usually, this will be according to the following two systems :

- Centesimal System - this is a system with a unit of currency that is equivalent to 100 smaller units. For example, there are 100 halala in a Saudi Riyal and 100 cents in a One-dollar US. Most countries use this
 system.
- Millesimal System - this is a system with a unit of currency equivalent to 1,000 smaller units. For example, the Bahraini Dinar is divided into 1,000 Fils. A few countries use this system.



## Activity 1-4-1:

- List three other currencies you are aware of for each system.


## Rate of Exchange：

To encourage trade exchange between all countries of the world，it is used at the level of individuals，institutions or countries，Currency conversion according to the daily exchange rate where the currency exchange rate is determined by supply and demand at a certain time in addition to other factors．

The exchange rate is defined as the number of monetary units by which one unit of local currency is exchanged for a foreign one．

Convert local currency to foreign currency in any country by displaying currency exchange rates in newspapers and websites at the buying，selling and conversion rate．For example，in the Kingdom of Bahrain we find the value of the US dollar in Bahraini dinars．

| Foreign Currency |  | Selling BHD | Buying BHD |
| :---: | :---: | :---: | :---: |
| 震 USA Dollar | USD | 0.378000 | 0.375000 |
| －Euro | EUR | 0.449100 | 0.466600 |
| －Japanese Yan | JPY | 0.003632 | 0.363500 |
| ＊Chinese Yuan Renminbi | CNY | 0.058267 | 0.056451 |
| 或底 British Pound | GBP | 0.524150 | 0.506650 |
| －Indian Rupee | INR | 0.005918 | 0.005168 |
| Thai Baht | THB | 0.011938 | 0.108792 |
| （a）Malaysian Ringgit RM | MYR | 0.099942 | 0.084192 |
| \％Saudi Arabian Riyal | SAR | 0.100650 | 0.100000 |
| Emirati Dirham | AED | 0.103900 | 0.101400 |
| E Kuwaiti Dinar KD | KWD | 1.252950 | 1.238950 |
| $\square$ Omani Rial | OMR | 0.992490 | 0.968490 |
| －Egyptian Pound | EGP | 0.0240441 | 0.0220521 |
| ［－Jordanian Dinar | JOD | 0.531800 | 0.531800 |

## Example 1-4-1:

Use the above currency exchange table in the following currency conversion:

You have BHD 1000 Bahraini Dinars and would like to convert it to USA Dollar.

$$
\frac{1 \times 1000}{0.378000}=\$ 2645.5026=\$ 2645.50
$$

(2.378

- The teller in Bahrain will sell the foreign currency, so we choose the selling price BHD 0.378000 .
- When we want to get the foreign currency from the teller, we will divide the amount in Bahraini dinars by the selling rate.



## Example 1-4-2:

Use the currency exchange table in the following currency conversion:
After you return from travel, you have EGP 2500
Egyptian pounds and you want to get the Bahraini dinar.

$$
\begin{aligned}
\frac{2500 \times 0.0220521}{1}= & \text { BHD55.13025 } \sim \\
& \text { BHD55.130 }
\end{aligned}
$$

- The teller in Bahrain will buy the foreign currency, so we choose the buying price BHD 0.0220521 .
- When we want to convert our foreign currencies into Bahraini Dinars from the teller, we multiply the foreign currency by the buying rate.



## Example 1-4-3:

- Use the currency exchange table in the following currency conversion:

Mariam has GBP 1850 British Pound and she wants to convert it into Indian rupees.

| BHD | GBP |
| :---: | :---: |
| 0.506650 |  |
| $? ?$ | $X_{1850}^{1}$ |


| BHD |
| :---: |
| 0.005918 |
| 937.303 |$\times_{? ?}^{1}$



- First the teller in Bahrain will buy the foreign currency, so we choose the buying price BHD0.005168. then the teller in Bahrain will sell the foreign currency, so we choose the selling price BHD 0.005918.


## Exercises 1-4-2:

1- Use the above currency exchange table in the following currency conversion:
a) You have BHD 250 and would like to convert it to Euro.
b) You have MYR 7,500 and you want to get the Bahraini dinar.
c) Manal has KWD 950 and she wants to convert it into USA Dollar.
$2-£ 1,000$ to BHD if the rate of exchange is $(£ 1=\mathrm{BD} 0.536)$.
3 - BHD1,500 to EURO if the rate of exchange is ( 1 Euro = BD0.474).
а) $250 \div 0.449100=566.67$
b) $7500 \times 0.084192=\mathrm{BD} 631.440$

## Note That :

BHD To Any Currency (use Selling price)
Any Currency TO BHD (use Buying price)
c) Manal has KWD 950 and she wants to convert it into USA Dollar
$\frac{950 \times 1.238950}{1}=1177.0025$
$\frac{1177.0025}{0.378}=\$ 3113.763$

OR $\frac{950 \times 1.238950}{0.378}=\$ 3113.763$
$\underline{\mathbf{2 - ~} £ 1,000}$ to BHD if the rate of exchange is $(£ 1=$ BD0.536).
$£ 1,000 \times 0.536=$ BHD 536

3- BHD1,500 to EURO if the rate of exchange is (1 Euro = BD0.474).
$\frac{1500}{0.474}=3,164.556$

1Q: Write the word name for these numbers:
a) $4830 \quad$ Four thousand eight hundred thirty
b) 51.860
c) 6.75

Fifty-one and eighty-six hundredths
Six and seventy-five hundredths
d) BD 732600
e) $\$ 195.51$

Seven hundred thirty-two thousand dinar and six hundred
One hundred ninety-five dollar and fifty-one cents
2Q: Write the number of the following:
a) Five billion, fifeen million, two hundred six. 5,015,000,206
$2,332,400,000 \quad$ b) Two billion, three hundred thirty -two million, four hundred thounsand.
c) One and tenths. 1.1
d) Twenty hunderd forty seven thousandths. 0.247
e) Eight hundred thiry- nine and twenty five -hundredths. 839.25

3Q: Find the place value of the following numbers:
a) $45,097,660,352$
b) $600,852,060,230$
c) $5,191,444,37,750 \quad 519,144,437,750$
d) $60,654,897,753,235$
e) $300,035,612,502,759$

|  | Trillions |  |  | Billions |  |  | Millions |  |  | Thousands |  |  | Units |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\dot{\theta}}{\dot{Z}}$ |  |  | 鍺 |  |  | $\stackrel{\text { On }}{\bar{\sim}}$ |  |  |  |  |  |  |  | $\stackrel{5}{\square}$ | $\stackrel{0}{0}$ |
| a) |  |  |  |  | 4 | 5 | 0 | 9 | 7 | 6 | 6 | 0 | 3 | 5 |  |
| b) |  |  |  | 6 | 0 | 0 | 8 | 5 | 2 | 0 | 6 | 0 | 2 | 3 | 0 |
| c) |  |  |  | 5 | 1 | 9 | 1 | 4 | 4 | 4 | 3 | 7 | 7 | 5 | 0 |
| d) |  | 6 | 0 | 6 | 5 | 4 | 8 | 9 | 7 | 7 | 5 | 3 | 2 | 3 | 5 |
| e) | 3 | 0 | 0 | 0 | 3 | 5 | 6 | 1 | 2 | 5 | 0 | 2 | 7 | 5 | 9 |

4Q: Find the place value of the following numbers:
a- $16,480.75$
b- 8,450,872.135

| Millions |  |  | Thousands |  |  | Units |  |  | Decimal System |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | $\stackrel{y}{5}$ | $\ddot{0}$ |  | $\stackrel{y}{\tilde{u}}$ |  |  |  |  |
|  |  |  |  | 1 | 6 | 4 | 8 | 0 | . | 7 | 5 |  |  |  |
|  |  | 8 | 4 | 5 | 0 | 8 | 7 | 2 | . | 1 | 3 | 5 |  |  |

5 Q : Round the following numbers:
a) $29,000,459$ to the first digit. $30,000,000$
b) $\$ 493.9126$ to nearest dollar. $\$ 494.912$
c) 42.3784 to the nearest thousand. ???

6Q: Convert by using draft rate, which you can get it from today's newspaper:

- BHD 4,620 to MYR
- JPY 789 to BHD
- CNY 98440 to EUR

7Q: Use the daily exchange rate in the following currency conversion:
a) Change BHD1,250 to if the rates of exchange are (EP£ $1=\mathrm{BD} 0.080$ ).
b) Bahraini family decided to travel to Kuwait. They need to change BHD 2,000 to KD. Find the amount they will get If the rate of exchange.
c) Sara Ali wants to send BHD 500 to her sister, which she learns in London as draft. How many pounds sterling did she send to her sister if the exchange rate transfer rate?

8Q: Fahad converted BHD 5,000 into Emirati Dirham to buy a car from Dubai, but he did not buy the car, and after returning to Bahrain, he converted the amount into Bahraini dinars. How much did Fahad lose?

6Q: Convert by using draft rate, which you can get it from today's newspaper:

## (Page 34)

- BHD 4,620 to MYR
$\frac{4,620}{0.099942}=46,226.811$
- JPY 789 to BHD
$789 \times 0.363500=$ BHD 286.801
- CNY 98440 to EUR
$\frac{98440 \times 0.056451}{1}=5,557.036$
$\frac{5,557.036}{0.449100}=12,373.716$

OR $\frac{5,557.036}{0.449100}=12,373.716$
Q7 Use the daily exchange rate in the following currency conversion:
a) Change BHD1,250 to if the rates of exchange are (EP£ $1=\operatorname{BD} 0.080)$.
$\frac{1,250}{0.080}=15,625$
b) Bahraini family decided to travel to Kuwait. They need to change BHD 2,000 to KD. Find the amount they will get If the rate of exchange (1.252950)
$\frac{2000}{1.252950}=K D 1,596.232$
c) Sara Ali wants to send BHD 500 to her sister, which she learns in London as draft. How many pounds sterling did she send to her sister if the exchange rate transfer rate ( 0.524150 )?

$$
\frac{500}{0.524150}=£ 953.925
$$

Q8 Fahad converted BHD 5,000 into Emirati Dirham to buy a car from Dubai, but he did not buy the car, and after returning to Bahrain, he converted the amount into Bahraini dinars. How much did Fahad lose?
Selling (BHD 0.103900)
Buying (BHD 0.101400)
$\frac{5000}{0.103900}=48,123.195$
$48,123.195 \times 0.101400=$ BHD 4,879.692
Fahad lose =
$5,000-4,879.692=120.308$

9Q: Use the following link to answer the questions:
https://forms.office.com/Pages/ResponsePage.aspx?id=DQSIkWdsW0yxEjajBLZt rQAAAAAAAAAAAAa Y9zjKhURUxQTUFGUkpKMDAxRjEyMFI1OTRH TDFRNy4u


## Unit 1



## Review Numbers

 and Currency Exchangeتوحيد المسارات（ تجاري）و التعليم الفني المهني
［（⿹勹⿰丿丿心夊）Enable Immersive Reader
Points：20／22

## $\checkmark$ Correct 2／2 Points

1
The number 9530 in letters is ：ninety thousand，five hundred thirty．nine thousand，five hundred thirty．nine thousand，five hundred three．
$\checkmark$ Correct 2／2 PointsTen million, one hundred five two thousand, eighty hundred sixty three

Ten million, one hundred fifty two thousand, eight hundred six three

Ten million, one hundred fifty two thousand, eight hundred sixty three
$\checkmark$ Correct 2/2 Points

3
The number BHD 731.500 in letters is:seven hundred thirty-one BHD and five hundred fils.seven hundred thirty-one BHD, five hundred fils.seven hundred three-one BHD and five hundred fils.

## $\checkmark$ Correct 2/2 Points

4

The number of million, six hundred ninety thousand, four hundred eleven and_ six six-tenths is:
5690411.06
5690411.6
5690411.006
$\checkmark$ Correct 2/2 Points

5
Round 5657 to the nearest hundred.

5700

5600

5650
$\checkmark$ Correct 2/2 Points

6

Round 42,548 to first digit:40.548

40,00043,000

## $\checkmark$ Correct 2/2 Points

7

- Round 86.11232 to the nearest hundredths.
86.00086.12
86.11
a) BHD 296.25984 to the nearest fils.BHD 296.259

BHD 296.260

BHD 296.200

## Will be reviewed

9

You have BHD 800 Bahraini Dinars and would like to convert it to EUR =€.......
( Selling BHD 0.449100)
( Buying BHD 0.466600)$€ 359.28$$€ 1714.53$
$€ 1781.34$

## $\checkmark$ Correct 2/2 Points

10

After you return from travel, you have THB 8500 Thai Baht and you want to get the Bahraini dinar.

Ebrahim Hasan Aman Selling BHD
0.378000 0.

## Euro

Japanese Yan
Chinese Yuan Renminbi
British Pound
$\because$ Indian Rupee
Thai Baht
INR
THB
0.011938
0.BHD 924.732
Feedback: $8500 \times 0.108792=$ BHD 924.732

BHD 1014.730BHD 78130.745
$\checkmark$ Correct 2/2 Points

11
Convert CNY 10500 to British Pound.

| USA Dollar | USD | 0.378000 | 0. |
| :--- | :---: | :--- | :--- |
| Euro | EUR | 0.449100 | 0. |
| Japanese Yan | JPY | 0.003632 | 0. |
| Chinese Yuan Renminbi | CNY | 0.058267 | 0. |
| British Pound | GBP | 0.524150 | 0. |
| Indian Rupee | INR | 0.005918 | 0. |
| Thai Baht | THB | 0.011938 | 0. |BD97492.959

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