

KINGDOM OF BAHRAIN

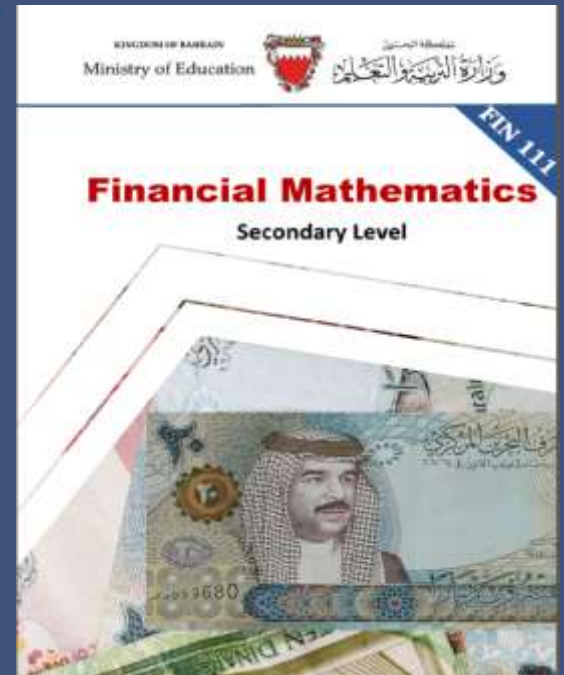
Ministry of Education



مملكة البحرين
وزارة التربية والتعليم

Teacher's Guide In Financial Mathematics

مال 111



2030
البحرين
BAHRAIN

The Ministry of Education, Kingdom of Bahrain has decided to teach this book in
secondary schools

Teacher's Guide

in Financial

Mathematics (Fin111)

Secondary Education

First Edition

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*Authoring and Development
A specialized team from the
Ministry of Education and
specialists from the Kingdom of
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The vision of the financial mathematics curriculum:

A curriculum that enhances belonging and consolidates the values of citizenship, by highlighting the role of financial and economic institutions, commercial projects, and production in the service of the national economy, and clarifying areas of commercial cooperation between the Arab Gulf states.

As well as providing students with finance experiences and skills such as problem-solving, critical thinking, time management, financial ratio analysis and feasibility study projects, and forming future visions about the various financial activities in the Kingdom of Bahrain and ways to enhance and develop them.

Financial Mathematics Curriculum Message:

- Building a conscious understanding of the Kingdom of Bahrain's Economic Vision 2030 and the goals of the economic development
- Focusing on the study of finance and its practices in project management.
- Developing awareness of the importance of Finance and its role in serving the national economy.
- Developing problem-solving, decision-making and crisis-management skills
- Using strategies that develop thinking skills (creative, innovative)
- Promoting the use of comprehensive evaluation methods for developing higher-order thinking skills.
- Promoting the use the employment of information technology in the study of finance.
- Emphasizing on the employment of 21st century skills in education, such as self-learning, leadership, effective communication, digital culture, and others.



Introduction:**Dear teachers,**

We are pleased to present the teacher's guide to finance, hoping that it will be a guide for you in teaching the subject, and a supporter in evaluating students, in order to achieve the desired goals of teaching accounting.

The guide includes:**A) Introduction to the financial mathematics Series:**

This introduction explains how to build the series scientifically and pedagogically, and highlights the focal points on which the curriculum focuses in this class. The philosophy of the horizontally balanced and vertically interconnected series, and the various teaching methods used in the guide, Assessment types, and their suggested tools, that take into account individual differences between students.

B) An overview of the chapter:

The course is divided into chapters. The teacher's guide begins in each chapter with an overview that includes an outline of the lessons and their objectives, the sources of their teaching, and the proposed time plan for teaching. Each lesson, then it introduces the vertical coherence of the topic of the chapter during class and other classes. He then provides support to the teacher through the chapter start page in the student's book, and how to benefit from them in presenting the topic of the chapter, as well as highlighting the purpose of the leaflets, their function and when to be use. Then it displays a calendar with its different types and various tools a chart of the calendar with its different types and its various tools.



C) Lessons:

This guide presents some suggested activities that take into finance the individual differences between students, and in a variety of ways, and help the teacher in teaching each lesson. After that, the guide presents the lesson with specific steps, which are:

The Focus: Shows the correlation of key skills before, during and after the lesson.

Teaching: Provides suggestions for the teacher on how to teach the lesson, including the discussion questions and the suggested activities, and highlights the accounting content of the lesson topic, as well as suggests additional examples for the teacher.

Training: It includes various exercises according to the different levels of the students to achieve the objectives of the lesson.

Assessment: Provides suggestions for evaluating the lesson. It also includes ideas for the teacher to verify the extent to which students have comprehended the concepts and mastered the skills presented in the lesson. Moreover, the guide presents a mechanism for following up the handouts. In each lesson, the guide also provides answers to the questions and exercises.

D) Evaluation methods

The series provides a variety of methods for evaluating students (diagnostic, formative, and summative), and mechanisms for dealing with students' errors and difficulties.

As we present this guide to our fellow teachers, we hope that it will gain their interest, meet their requirements for teaching this course, and help them fulfill their targets.





The Importance of the Guide

Dear teacher, the importance of this guide is that it:

- guides you to, how to use multiple learning tools and resources.
- provides you with suggestions related to the teacher's usage of technology
- directs you how to apply various teaching strategies.
- provides you with clear procedures for how to carry out the learning activities.
- shows how to address issues that may arise during the lesson.
- directs you to use a variety of evaluation methods (cognitive - skill - emotional).
- directs you to how to link and integrate between the different parts of the an article.
- directs you to how to link and integrate between the material and other materials.
- guides you on how to identify common errors, and how to deal with them.
- includes guiding models for calendar methods.
- includes a list of educational and academic terms that you need while teaching the subject.
- includes a list of references, and some websites; to be used while it in teaching the subject.





Objectives of the guide

This guide aims to help you, dear teacher, in:

- teaching the curriculum effectively to achieve the desired goals within the framework of active learning
- organizing and managing effectively the multi-level classroom.
- forming an educational environment based on active learning that makes the learner the focus of the educational process and an active participant in the learning process.
- stimulating learners' motivation towards learning and creating a cooperative atmosphere among them.
- using of various educational means such as compound interest and annuities.
- putting the skill and emotional aspects when teaching financial mathematics curricula.
- using a variety of multi-level evaluation methods.



Vertically Connected Financial Mathematics Approach From Grade 11 to Grade 12

This series introduces you to three dimensions of vertical bonding:

1- Content Design:

Threading content is an important process that helps your students verify the exact sequence of content and its sequencing from one level to another. This gives you confidence that the content is delivered, reinforced, and assessed in a timely manner, also helps fill in the gaps and avoid unnecessary repetition, enabling you to direct and adapt your teaching to suit your needs.

2- Teaching Design:

The strong vertical correlation between the different teachings, methods starting from the first grade, makes it easier for students to move from the primary stage to the intermediate stage and to the secondary stage. Vocabulary, sensory techniques and aids, lesson plan and treatment reduce the factors of difficulty and confusion that some students encounter as they move through the different grades.

3- Visual Design:

The series pages have visual designs that are consistent from one grade to the next, helping students to move smoothly from one stage to the other, and to learn and succeed increases when they become familiar with the way they work with them.



The five keys to success

1- Concept Maps of Previous Experiences:

The series considers conceptual maps and their development based on students' results in the business culture course.

2- Balanced deep content:

The series has been developed to focus on the skills and topics that are faced at each grade level. Students with difficulties, such as solving.

a) Grade 11 (Financial Mathematics 1- FIN, 111):

- Review Numbers and Currency Exchange.
- Salaries and Wages System
- Discounts and Pricing Goods
- Simple Interest

b) Grade 12 (Financial Mathematics 2- FIN, 316):

- Compound Interest.
- Annuities and Loans Amortization
- Capital Budgeting Decision Model
- Breakeven Analysis
- Ratio Analysis

3- Continuous evaluation:

This series includes diagnostic, formative, and summative assessments, and remedial and enrichment plans.



4- Treatment plans and diversification of teaching:

The series provides a three-tiered treatment plan:

a) **Daily Treatment:**

Various alternatives are identified in the teacher's guide for teaching concepts according to different learning styles.

b) **Strategic Treatment:**

Teachers use remedial tips and support materials.

c) **Intensive treatment:**

Provides instructional guidance, supportive vocabulary, and remedial plans to help students succeed.

d) **professional development:**

The series provides many opportunities for the teacher to develop his professional performance, through additional teaching methods, such as video, computer financial mathematics, and vertically interlinked websites from grade 11 to grade 12.



Research Base for Financial Mathematics Software

The continuous research with students, teachers, academics and experts helps build all mathematics programs from the first grade to the twelfth grade on solid foundations.

a) Software Development Research

- National Standards Assessment
- Qualitative research for the needs of the labor market
- Research related to scientific content

b) Formative Research

- Teaching research base
- practice exams
- teacher advisory committees
- Academic reviewers and advisors

c) Final Research

- Experimental indicators of program effectiveness
- longitudinal studies
- Program quality assessments



Preparing students for university studies and for the labour market:

This series connects what students learn in secondary school with what they are expected to know when they start university.



How can undergraduate studies, be way better arranged for those considering studying at university?

A strong high school curriculum is a good indicator of college readiness, as students who study secondary school financial mathematics books in this series are more prepared for university than those who have not.

The following are some aspects of preparation for the university study that he developed:

Mental Skills

They are necessary skills for learning content at the university level, and include: critical thinking, problem solving and justification, and every day students who study this series have opportunities to develop higher-order thinking skills.

Scientific Content

The secondary school textbooks of this series are consistent with accurate the international standards to suit university education and sustainable development goals in accordance to Bahrain Vision 2030.

General Skills



That include skills such as: reading comprehension, time management, note taking ... etc. This series provides opportunities to develop these skills through accounting reading guidelines, vocabulary links, prediction guides, and more.

What about students who do not plan to go to university?

Accounting in the modern world of technology is no longer restricted to students who attend universities. One of the studies showed that the training programs that a person who wants to get a job is undergoing requires that this person has a certain level of education in preparing daily entries, analyzing accounting operations, preparing final financial statements, adjusting entries, to be successful at ones job , and preparing balance sheets. Until he succeeds in his work.

Program philosophy:

The vertical connection of this series shows a balanced integration of education. This series provides students with a balanced accounting curve through:

- Developing, enhancing and mastering procedural and arithmetic skills.
- Real-life issues.
- The application of accounting in a solution

The sequence of topics in the three accounting books shows the development of the vertical interrelationship of the cognitive understanding and the procedural skills of accounting through the preparation of daily entries, methods of depreciation of fixed assets, methods of evaluating goods, final financial statements and analysis of financial statements.

Continuity of Education

The learning sequence that is described above illustrates the power of matching a desired outcome with success in algebra. This development process avoids gaps or overlaps between grade levels, and ensures that the



concepts and skills of each grade are built on a solid foundation developed in the previous grades. The same direction is used across all tracks, starting from the eleventh to the twelfth grade.

Teaching Process Balance

- concepts
- skills
- solve problems

Problem Solving Strategy

Problem solving strategies help students learn different ways to tackle difficult problems

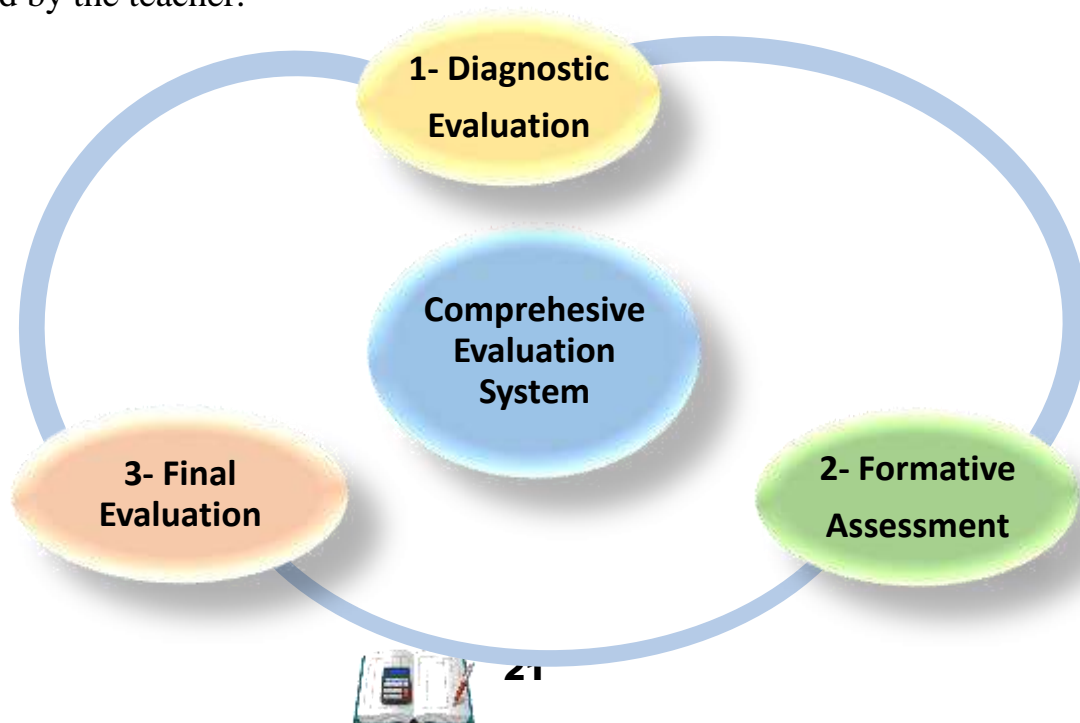
Higher Thinking Skills Problems

These problems require the use of higher-order thinking skills (analysis, composition ...)

Comprehensive Evaluation System

Error handling

The series provides an on-going, meaningful assessment of the student is progress in the structure of the curriculum and in the supporting materials used by the teacher.



1

Diagnostic Evaluation

a) Preliminary Calendar

Assess your students' knowledge at the beginning of the academic year using diagnostic tests and placement tests. This will help you determine if your students will need additional learning materials and resources; to be able to align with the grade level standards.

b) Academic input level Assessment

Evaluate the knowledge prior to your application at the beginning of the chapter or lesson, using the resources in the Student's Book, the Teacher's Handbook, or any other resources you consider useful.

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

2

Formative assessment

Formative Assessment

Monitoring Progress: Determine if your students are making adequate progress as they learn each lesson first, using the following types of assessment to vary the teaching and techniques:

Example 1-2-1:
 Find the place value of the number 381,345,287,369,021.

Trillions	Billions	Millions	Thousands	Units
Hundred Trillion Ten Trillion Trillion	Hundred Billion Ten Billion Billion	Hundred Million Ten Million Million	Hundred Thousand Ten Thousand Thousand	Hundred Ten One
3 8 1	3 4 5	2 8 7	3 6 9	0 2 1
381 trillion	345 billion	287 million	369 thousand	021



a) Student's Book

- Make sure you understand
- Mid-term exam
- Study and revision guide
- Brochures

b) Teacher's Guide

- Error handling

3

Final Evaluation

Final Evaluation

Evaluate how successful your students are in learning each chapter using the following:

a) Student's Book

- End-of-Semester Exam
- Cumulative Standard Exam
- Research and Reports

b) Teacher's Guide

- Error handling

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	Decimal System				
Hundred millions	Ten millions	Million	Hundred thousands	Ten thousands	Thousand	Hundred	Tens	One
Decimal point	Tenths	Hundredths	Thousandths	Ten-thousandths	Hundred-thousandths			

a.									
b.									
c.									
d.									



Diversification of Education

Meet the needs of the students

The series provides broad support that takes into account individual differences among students. Each chapter and each lesson contains suggestions; to determine and meet the needs of your students. The diversification of education meets the needs of the following two groups:

- Below average students.
- Above average students.

Advanced level students

Acceleration and Enrichment: The resources and homework that are rated for A-level students can be used with A-level students.

Multilevel question set

The homework for each lesson was varied according to the levels of the students:

- below average
- within average
- above average

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.



$$= \frac{1850 \times 0.506650}{1} = \text{BHD}937.3025 \sim \text{BHD}937.303$$

$$= \frac{1 \times 937.303}{0.005918} = \text{INR}158381.7168 \sim \text{INR}158381.72$$



BHD	GBP
0.506650	1
??	1850

BHD	INR
0.005918	1
937.303	??



Education Plan

The four-step education plan

Organize your education and include:

- 1- the focus
- 2- teaching
- 3- training
- 4- Evaluation

The Vertical Correlation at the beginning of each lesson

Outline the objectives that lead to the current lesson content and the objectives that follow, and which come within the scope and sequencer document from grades eleven to twelve.

Reinforcement questions

Each lesson contains some reinforcement questions to be used to help students investigate and understand the main ideas of the lesson.

Additional examples

Each additional example is a reflection of an example in the Student's Book.

Variations of homework

The formative calendar activities provide alternative methods to determine the extent to which students understand at the end of each lesson, such as:

pre-learning

Students connect what they are learning in the current lesson with what they have learned previously.

Later learning

The student anticipates how the current lesson will relate to the next lesson



Nomenclature of Terms in Financial Mathematics

The students specify the financial mathematics information used in the problem.

Exit Card

Write the answer to the question on a sheet of paper and hand over before you leave the classroom.

21st Century Skills

How today's students can stay competitive in a changing job market

Learning Skills



critical thinking



creativity



collaboration



communication

Literacy Skills



information



media



technology

Life Skills



flexibility



leadership



initiative

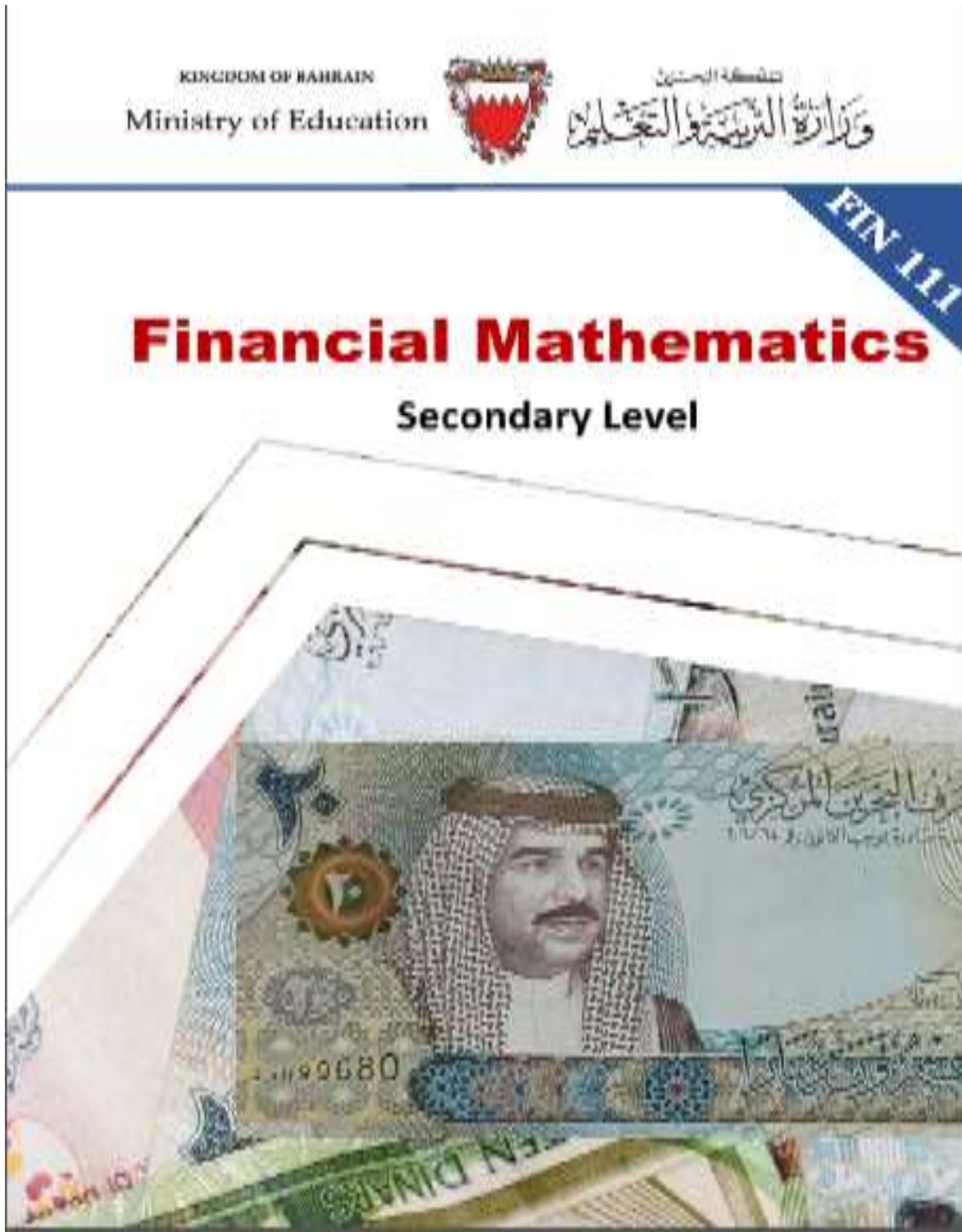


productivity



social skills





Teaching Plan

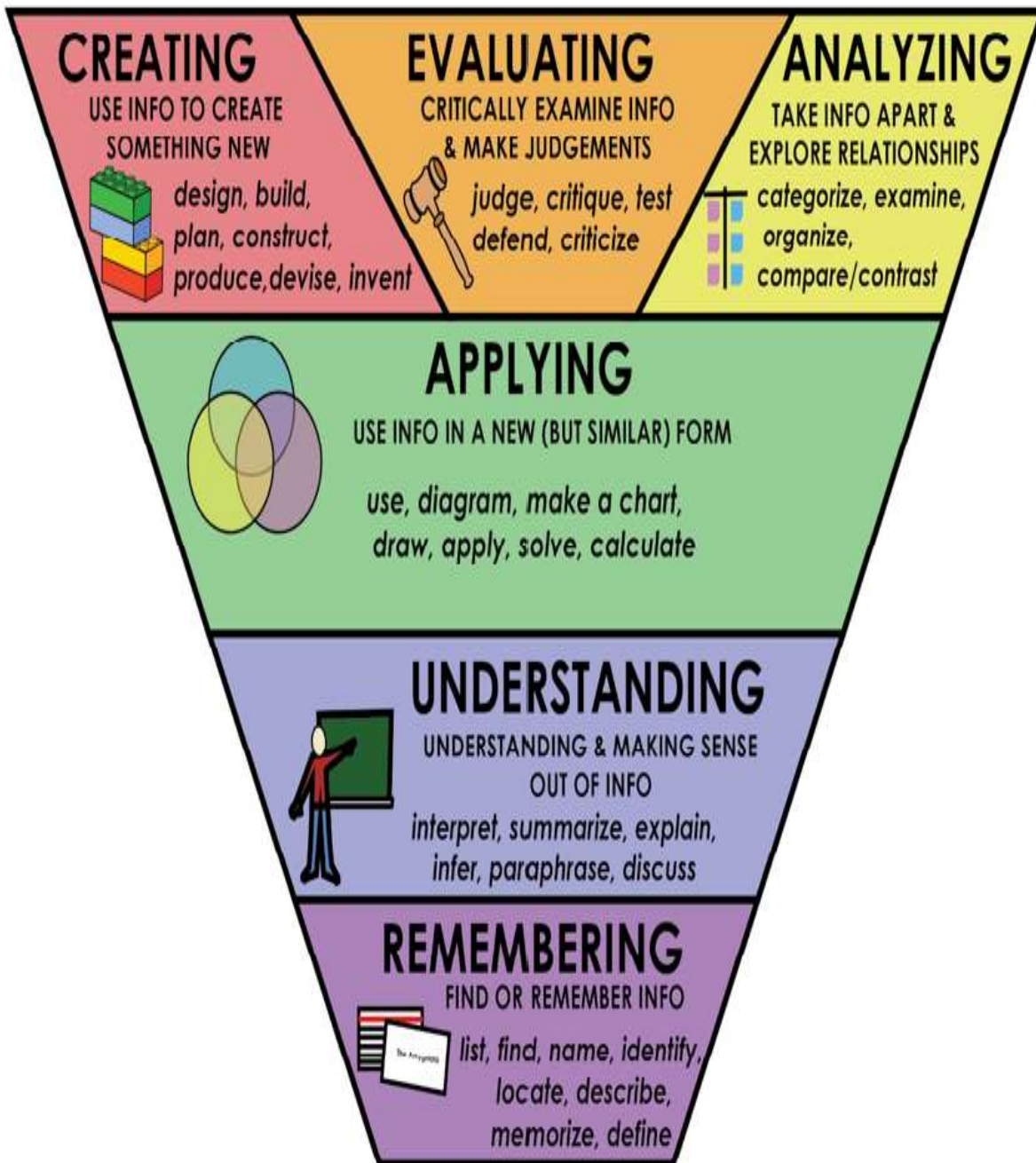
	Unit1	Unit2	Unit3	Unit4
Title	Review Numbers and Currency Exchange	Salaries and Wages System	Discounts and Pricing Goods	Simple Interest
Studying Period	Three Weeks	Four Weeks	Four Weeks	Three Weeks
Learning Objectives	1- Write the whole and decimal numbers. 2- Place value and our number system. 3- Round the whole numbers. 4- Money and currency exchange	1- Identify system of payment. 2- Methods of payment – hour-week-month -over time. 3- Methods of payment – piece – rate. 4- Calculating payroll by commission - bonus. 5- Calculating deductions and adjustments to pay.	1- Calculating discounts, selling price and purchase price. 2- Calculating customs and tariffs. 3- Pricing goods. 4- Preparing the invoice	1- Recognize the concept of interest. 2- Identify the concept of time value of money. 3- Explain the different types of the simple interest. 4- Identify the method of calculating Simple Interest for various periods 5- Identify the method of calculating trade & exact simple interest.
Basic Vocabulary	1- Read and write whole numbers 2- Decimals and the place-value system 3- Round whole number. 4- Money and the currency system. 5- Rate of Exchange	1- Payment per hour or week 2- Piece-rate system 3- Payroll by commission & bonus. 4- Deductions.	1- Trade Discount 2- Net Price 3- Discount Rate 4- List Price 5- Discount Cards 6- Cash Discount 7- VAT 8- Tariff 9- Mark up 10- Mark down	1-Time Value 2- Simple Interest 3- Principal 4- Interest Rate 5- Amount 6- Trade Interest. 7- Exact interest



Lesson Resources	1- Text book 2- Teacher's Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Teacher's Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Teacher's Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Teacher's Guide 3- Digital Educational Lesson 4- YouTube Lesson
Teaching Strategies	1- Brainstorming 2- Cooperative Education 3- Problem Solving 4- E-Learning 5- Peer evaluation	1- Brainstorming 2- Cooperative Education 3- Problem Solving 4- E-Learning 5- Peer evaluation	1- Brainstorming 2- Cooperative Education 3- Problem Solving 4- E-Learning 5- Peer evaluation	1- Brainstorming 2- Cooperative Education 3- Problem Solving 4- E-Learning 5- Peer evaluation
Necessary Tools	1- Text book 2- Exchange rate table 3- Calculator	1- Text book 2- Labour law 3- Calculator	1- Text book 2- Follow up on VAT & Tariff 3- Calculator	1- Text book 2- Time table 3- Calculator
Techniques	Smart Interactive Whiteboard	Smart Interactive Whiteboard	Smart Interactive Whiteboard	Smart Interactive Whiteboard
Diversification of Education	Pages (33-34)	Pages (59- 60- 61)	Pages (92-96-97 - 98-99-100)	Pages (119-122-123-125-126-127-128)
Student assessment methods	1- creative calendar 2- achievement files 3- Practical evaluation 4- self evaluation	1- creative calendar 2- achievement files 3- Practical evaluation 4- self evaluation	1- creative calendar 2- achievement files 3- Practical evaluation 4- self evaluation	1- creative calendar 2- achievement files 3- Practical evaluation 4- self evaluation
Assessment Strategies	1- Performance-based Assessment 2- Pencil and Paper 3- Reflection	1- Performance-based Assessment 2- Pencil and Paper 3- Reflection	1- Performance-based Assessment 2- Pencil and Paper 3- Reflection	1- Performance-based Assessment 2- Pencil and Paper 3- Reflection



BLOOM'S TAXONOMY





Unit 1

Review Numbers and Currency Exchange



Unit 1: Review Numbers and Currency Exchange – part 1



Why?

We must read whole numbers.

How to read whole :

- 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.

Lesson Notes

1- The Focus

Before the Lesson:

Using Review the spelling of numbers.

During the Lesson:

- 1- Write the whole and decimal numbers.
- 2- Place value and our number system.

After the Lesson:

The students able to write the whole numbers.

1	One	11	eleven	10	ten	21	twenty-one
2	Two	12	twelve	20	twenty	22	twenty- two
3	Three	13	thirteen	30	thirty	33	thirty-three
4	Four	14	fourteen	40	forty	44	forty-four
5	Five	15	fifteen	50	fifty	55	fifty-five
6	Six	16	sixteen	60	sixty	66	sixty-six
7	Seven	17	seventeen	70	seventy	77	seventy-seven
8	Eight	18	eighteen	80	eighty	88	eighty- eight
9	Nine	19	nineteen	90	ninety	99	ninety- nine
100			one-hundred				
2,000			two-thousand				
3000,000			three-million				
4000,000,000			four-billion				
5000,000,000,000			five-trillion				



How to write decimal number?

Explain to students:

- 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.
payment to creditor.

2- Teaching Reinforcement Question:

Ask the students to read pages 16 and 17 (Text Book.)

3- Formative Assessment.

Ask the student to solve example 1-1-2 (page 17) during the class period by using brainstorming Strategy



Example 1-1-1:

Write the number **1,890,512.627** in letters:

Millions	Thousands	Units	Point	Tenths	Hundredths	Thousandths
1	8	9	0	5	1	2
			.	6	2	7

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

Place Value and Number System:

a- Whole numbers and the place-value system

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.



Example 1-2-1:

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

Trillions			Billions			Millions			Thousands			Units		
Hundred Trillion	Ten Trillion	Trillion	Hundred Billion	Ten Billion	Billion	Hundred Million	Ten Million	Million	Hundred Thousand	Ten Thousand	Thousand	Hundred	Ten	One
3	8	1	3	4	5	2	8	7	3	6	9	0	2	1
381 trillion			345 billion			287 million			369 thousand			021		

Study Instructions:
Remember the spelling of numbers from one to thousand.





Exercises 1-2-1:

1-Find the place value of the following numbers:

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

Formative assessment:

Ask the students to solve exercises on pages 20, 21 (Textbook.)

➤ Ask the student to use the following table:

Chapter Resources			
Resource	Below Average	In Average	Over Average
Teacher's Guide	Page (17)	Page 20 (1-2-1)	Page 23 (1-2-2)
Lesson Resources	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson

Teaching with technology

Ask the student solve the exercises page 33 text book.



Unit 1: Review Numbers and Currency Exchange – part 2

Lesson Notes

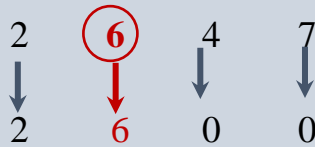
1-3: Round Whole Number

Explain the effects on the basic accounting equation in:

- 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:

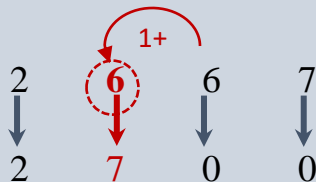
- ▶ Round 2647 to the nearest hundred.



- ▶ 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.



The Focus

Before the Lesson:

Revision of the place value and number system.

During the Lesson:

Analysis transactions for:

- 1- If digit is more than 5.
- 2- - If digit is less than 5.

After the Lesson:

The student able to round to a specified decimal place.



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?

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



Example 1-3-7:

- Round the number to the specified place.

a) 14.342 to the nearest tenth.

1	4	•	3	4	2
			↓		
1	4	•	3		

b) \$ 28.465 to the nearest cent.

2	8	•	4	6	5
				↖ 1+	
			↓		
2	8	•	4	7	

c) BD 1,235.25124 to the nearest fils.

1	,	2	5	3	•	2	5	1	2	4
								↓		
1	,	2	5	3	•	2	5	0		

2- Teaching Reinforcement Question:

Ask the students to read pages 24 – 25-26 (Text book.)

3- Formative Assessment.

Ask the student to solve the exercise 1-2-2 (page 23) During the class period by using problem solving strategy.

Study Instructions:
Remember that the digit is more or less than 5.





Exercises 1-3-2:

- ▶ Round the following numbers:
 - a) 3,784.921 to the nearest thousand.
 - b) 52,973 to the nearest hundred.
 - c) 6.098 to the nearest ten.
 - d) 29,000,459 to the first digit.
 - e) \$493.9126 to nearest dollar.
 - f) 42.3784 to the nearest thousand.

Teaching with technology

Ask the student to solve the exercise.

Teaching Instruction

Explain to the students example (1-3-6) &(1-3-7) on Pages 26 -27

➤ Ask the students to use the following table:

Chapter Resources			
Resource	Below Average	In Average	Over Average
Teacher's Guide	Page 46	Page 47	Page 48
Lesson Resources	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson

Formative assessment:

Ask the students to solve exercises page 34 (Text Book.)



Unit 1: Review Numbers and Currency Exchange – part 3

Lesson Notes

1.4 Money and the Currency

Rate of Exchange:

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
	USA Dollar	USD	0.378000	0.375000
	Euro	EUR	0.474000	0.466600
	Japanese Yen	JPY	0.003632	0.363500
	<i>Chinese</i> Renminbi	Yuan CNY	0.058267	0.056451
	British Pound	GBP	0.524150	0.506650
	Indian Rupee	INR	0.005918	0.005168
	Thai Baht	THB	0.011938	0.108792
	Malaysian Ringgit	MYR	0.099942	0.084192
	Saudi Arabian Riyal	SAR	0.100650	0.100000
	Emirati Dirham	AED	0.103900	0.101400
	Kuwaiti Dinar	KWD	1.252950	1.238950
	Omani Rial	OMR	0.992490	0.968490
	Egyptian Pound	EGP	0.0240441	0.0220521
	Jordanian Dinar	JOD	0.531800	0.531800

The Focus

Before the Lesson:

Revision of the place value and number system.

During the Lesson:

The students should be learn:
1- The difference between buying and selling price for foreign currency.
2- when we can use buying and selling price.

After the Lesson:

The student able to converted BHD to foreign currency, and from foreign currency to BHD.



2- Teaching Reinforcement

Question:

Ask the students to read pages 28& 29 (Text book.)

3- Formative Assessment.

Ask the student to solve the exercise 1-2-2 (page 23) During the class period by using problem solving strategy.



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.

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

BHD		USD
0.378	X	1
1000		??

- 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.

$$\frac{2500 \times 0.0220521}{1} = \text{BHD}55.13025 \sim \text{BHD}55.130$$

BHD		EGP
0.0220521	X	1
??		2500

Study Instructions:
Searching about exchange 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.

$$= \frac{1850 \times 0.506650}{1} = \text{BHD}937.3025 \sim \text{BHD}937.303$$

$$= \frac{1 \times 937.303}{0.005918} = \text{INR}158381.7168 \sim \text{INR}158381.72$$

BHD	GBP
0.506650	1
??	1850

BHD	INR
0.005918	1
937.303	??

Teaching with technology

Ask the student to solve the exercise (1-4-2) page32

Teaching Instruction

Explain to the students example (1-4-3) Page 32

► Ask the student to use the following table:

Chapter Resources			
Resource	Below Average	In Average	Over Average
Teacher's Guide	Page 33 (1-2)	Page 33-34 (3-4)	Page 34 (5-8)
Lesson Resources	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson
Extra Resources	Activity Notebook	Activity Notebook	Activity Notebook

Formative assessment:

Ask the students to solve exercises pages 33-34 (Text Book.)





Unit 2

Salaries and Wages System



2

Learning Objective

By the end of this unit, the student should be able to:

- ▶ identify system of payment.
- ▶ methods of payment – hour-week-month -over time.
- ▶ methods of payment – piece – rate.
- ▶ calculating payroll by commission - bonus.
- ▶ calculating deductions and adjustments to pay.



Unit 2: Salaries and Wages System – part 1

Lesson Notes

2.2 Payroll by Hour and Week:

Explain to the students :

Payment per hour or week; in which an employee is paid according to the number of hours or weeks worked together with any overtime or bonus payment. Sometimes, as an alternative, a basic minimum wage is paid supplemented by a commission based upon the number of sales achieved by the employee.



The Focus

Before the Lesson:

Revision of the place value and number system.

During the Lesson:

1- Identify system of payment.

2- Methods of payment – hour-week-month -over time.

After the Lesson:

The student able to count wages and salaries by hour, week, and monthly.

Example 2-2-1:

- ▶ An employee is engaged for 46 hours during the day a week at a basic rate of BD2.500 per hour. Calculate the gross wage received during the period.

Days	FRI	SAT	SUN	MON	TUE	WED	THU
Hours	0	8	8	6	8	8	8
O.T during the day	0	0	0	0	0	0	0
O.T during the night	0	0	0	0	0	0	0

Note: (O.T) it means over time.

Solution:

$$\text{Number of hours} = 8 + 8 + 6 + 8 + 8 + 8 = 46 \text{ hours}$$

$$\text{Total Regular Wage} = 46 \times \text{BHD}2.500$$

$$= \text{BHD}115.000$$





Example 2-2-2:

▶ Jameel worked the following hours during the week in Jan 2021:

Week	FRI	SAT	SUN	MON	TUE	WED	THU
1	1 JAN	2 JAN	3 JAN	4 JAN	5 JAN	6 JAN	7 JAN
	0	8	8	7	8	8	8
2	8 JAN	9 JAN	10 JAN	11 JAN	12 JAN	13 JAN	14 JAN
	0	8	8	8	8	8	5
3	15 JAN	16 JAN	17 JAN	18 JAN	19 JAN	20 JAN	21 JAN
	0	6	8	8	8	8	8
4	22 JAN	23 JAN	24 JAN	25 JAN	26 JAN	27 JAN	28 JAN
	0	8	8	8	8	8	8
5	29 JAN	30 JAN	31 JAN	1 FEB	2 FEB	3 FEB	4 FEB
	0	8	8	8	8	6	8

Calculate the wage for the month of January 2021, the average hourly wage is BHD 2.800.

Solution:

Number of hours: week 1 = 8 + 8 + 7 + 8 + 8 + 8 = 47 hours
 week 2 = 8 + 8 + 8 + 8 + 8 + 5 = 45 hours
 week 3 = 6 + 8 + 8 + 8 + 8 + 8 = 46 hours
 week 4 = 8 + 8 + 8 + 8 + 8 + 8 = 48 hours
 week 5 = 8 + 8 = 16 hours

Total Working Hours = 202 hours

Total Regular Wage = 202 × 2.800 = BHD565.600

2- Teaching Reinforcement Question:

Ask the students to study pages 41 – 42-43 (Text book.)

3- Formative Assessment.

Ask the student to solve the exercise 2-2-1 (page 43) During the class period by using problem solving strategy.

Study Instructions:
Read text book Labour low 322.





Exercises 2-2-2:

► Faisal worked the following hours during the week in:

Days	FRI	SAT	SUN	MON	TUE	WED	THU
Hours	0	7	8	6	8	7	8
O.T during the day	0	0	0	2.5	0	3.5	1
O.T during the night	0	0	3	0	2	3	2

Calculate the total wage during the week, if you know that the average hourly wage is BHD 3.750.

Teaching with technology

Ask the student to solve the exercise page 44.

Teaching Instruction

Explain to the students example (2-2-2) &(2-2-3) on Pages 42 -43

► Ask the students to use the following table:

Chapter Resources			
Resource	Below Average	In Average	Over Average
Teacher's Guide	Page 43 (2-2-1)	Page 44 (2-2-2)	Page 44(2-2-3)
Lesson Resources	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson

Formative assessment:

Ask the students to solve exercises page 44 (Text Book.)



Unit 2: Salaries and Wages System – part 2

Lesson Notes

2.2 Payroll by Piece & Rate System:

Explain to students:

Piece-rate system; in which the employee is paid for each unit of output (piece) produced. Article No (38). of the Labor Law stipulates wages may be calculated by the hour, day, week, month, on a piece-rate or per production. Wages shall not be deemed to be calculated on a piece-work or production basis unless expressly specified in the labour contract.



Example 2-3-1:

- Khalid an employee at Gulf Plastic co. is given BHD0.750 as piece rate of work. Find his total pay for a September 2021, if his total production for that month was 360 pieces?

Solution:

$$\begin{aligned} \text{Total wage pay} &= \text{Number produced} \times \text{Rate per piece} \\ &= 360 \times \text{BHD}0.750 \\ &= \text{BHD}270.000 \end{aligned}$$

2.4 Payroll by Commission & Bonuses:

Explain to students common types of commission that are used:

- 1- Straight Commission.
- 2- Graduated Commission.
- 3- Volume Commission and Value Commission.
- 4- Bonuses.

The Focus

Before the Lesson:

Revision labor
low 322

During the Lesson:

- 1- Methods of payment – piece – rate.
- 2- Calculating payroll by commission - bonus.

After the Lesson:

The student able to count wages and salaries by piece rate, commission and bonus





Example 2-4-1:

- Nasser works as a salesman in a company for a base salary of BHD 300 per month plus a commission of 5% of sales. If he has made sales of BHD2000 at the end of the Mar 2021. What is the gross salary for this employee for the Mar 2021?

Solution:

$$\begin{aligned} \text{Commission} &= 5\% \times 2000 = \text{BHD } 100 \\ \text{Total gross wage} &= \text{Basic wage} + \text{Commission} \\ &= 300 + 100 \\ &= \text{BHD } 400 \end{aligned}$$



Example 2-4-2:

- Ahmed, an employee, is paid a basic salary of BHD 300 per month, followed by a **graduated commission** of 2½% on the first BHD1,000 of sales and 5% thereafter.

What will he earn in a month when sales total BHD4,700?

Solution:

$$\begin{aligned} \text{Commission on the first BD1,000} &= 2\frac{1}{2}\% \times 1,000 = \text{BHD } 25 \\ \text{Balance} &= 4,700 - 1,000 = \text{BHD } 3,700 \\ \text{Commission on the balance} &= 5\% \times 3,700 = \text{BHD } 185 \\ \text{Total gross wage} &= \text{Basic wage} + \text{Commission} \\ &= 300 + 25 + 185 = \text{BHD } 510. \end{aligned}$$

2- Teaching Reinforcement Question:

Ask the students to study pages 47 – 48-49 (Text book.)

3- Formative Assessment.

Ask the student to solve the exercise 2-4-1 (page 49) During the class period by using problem solving strategy.

Study Instructions:
Ask the students to solve homework exercise (2-4-2) page 49.





Example 2-4-3:

▶ Rashid works as a sales employee with a monthly salary of BHD300 per month in addition **bonus** to 5% of annual sales, which are over BHD30000. If its annual sales reach 45000. Find his annual salary.

Solution:

$$\begin{aligned} \text{Annual bonus} &= (45000 - 30000) \times 5\% = \text{BHD } 750 \\ \text{Annual salary} &= 300 \times 12 = \text{BHD}3600 \\ \text{Total annual salary} &= 3600 + 750 = \text{BHD}4350 \end{aligned}$$

Teaching with technology

Ask the student to solve the exercise page 49.

Teaching Instruction

Explain to the students example (2-4-1) &(2-4-3) on Pages 47-48

➤ Ask the students to use the following table:

Chapter Resources			
Resource	Below Average	In Average	Over Average
Teacher's Guide	Page 49 (2-4-1) a	Page 49 (2-4-1) b-c	Page 49(2-4-2)
Lesson Resources	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson

Formative assessment:

Ask the students to solve exercises page 49 (Text Book.)



Unit 2: Salaries and Wages System – part 3

2.5 Deductions:

Explain to the students two types of deductions that can be incurred:

1- Statutory Deductions. This means that a certain deduction amount (as a percentage) has been taken from employee's income to the pension funds or social insurance.

The purpose of these payments is to provide a state pension to the employee on retirement. Zaka (زكاة) is also deducted as a percentage of the employees annual income .

2- Non-statutory Deductions. These kind of deductions may be made from an employee's income and subject to the employee's agreement. These include payments to private employer- sponsored pension schemes, holiday funds , savings schemes, etc.

On a monthly draw basis and the following deductions are made:

- a- 6% Pension Fund Contribution Deduction (Basic Salary + Social Allowance) public sector.
- b- 7% as social insurance. (Basic Salary + Fixed allowances) private sector.
- c- 1% Unemployment Insurance Deduction.
- d- Housing Bank Loan Repayment Deduction.
- e- Law Court Deduction

The Focus

Before the Lesson:

Revision of the payroll by piece rate and commission.

During the Lesson:

1- Identify the difference between two types of deduction page 50 text book.

2- Count two types of deduction.

After the Lesson:

The student able to count net salaries after allowances and deductions.





Example 2-5-1:

- ▶ Moh'd works in a private sector in the Bahrain Co., with a basic monthly salary of BHD 400 and BD30 as a monthly qualification allowance. And BHD 20 as phone allowances this month only. Deducted per month BHD 50 law court. Calculate his net salary for the month?

Solution:

- Total allowances = qualification allowance + phone allowances

$$= \quad \quad 30 \quad \quad + \quad \quad 20$$

$$= \text{BHD } 50$$

- Social Insurance = (basic salary + qualification allowance) × 7%

$$= (\quad 400 \quad + \quad 30 \quad) \times 7\%$$

$$= \text{BHD } 30.100$$

- Unemployment Insurance = (basic salary + qualification allowance) × 1%

$$= (\quad 400 \quad + \quad 30 \quad) \times 1\%$$

$$= \text{BHD } 4.300$$

- Total deduction = insurance + Insurance + Court Deduction

Social	Unemployment	Law
Insurance	Insurance	Court Deduction
+ 30.1	+ 4.300	+ 50
= BHD84.400		

- Net salary = Basic salary + Total allowancesJ - Total deduction

$$= \quad 400 \quad + \quad 50 \quad - \quad 84.400$$

$$= \text{BHD}365.600$$

2- Teaching Reinforcement Question:

Explain to the students example (2-5-1) pages (Text book.)

3- Formative Assessment.

Ask the student to solve the exercise 2-5-1 (page 53- A) During the class period by using problem solving strategy.

Study Instructions:

Read text book deduction % page 50.



Example 2-5-2:

► Ahmed Ali works in the Ministry of Education earning BHD1277 as basic salary, BHD70 as social allowance, BHD20 as transport allowance and BHD50 as living standard improving allowance.

Calculate his net salary for May 2021 if the housing bank loan is BHD 171.

PERSONNEL INFORMATION	
Ministry	EDUC-MINISTRY OF EDUCATION
CPI#	XXXXXXXXXX
Name	AHMED ALI AHMED
Position Title	SPECIALIST
Month	05-2021
Grade Step	A7-Step 19
Bank name	AHLI LIMITED BANK
Acc.No.	0019XXXX-000
PAYMENT INFORMATION	
Basic Salary	1,277.000
ALLOWANCES	
Social Allowance	70.000
Transport Allowance	20.000
Living Standard Improving Allowance	50.000
GROSS PAY	1,417.000
DEDUCTIONS	
Social Pension Deduction	8.200
Unemployment Insurance Deduction	13.470
Housing Bank Loan Repayment Deduction	171.000
Pension Fund Contribution Deduction	76.620
GROSS DEDUCTIONS	265.290
NET PAY	1,151.710

Solution:

- Total allowances = Social allowance + Transport allowance + living standard improving

$$= 70 + 20 + 50 = \text{BHD } 140$$
- Pension Fund Contribution = (basic salary + Social allowance) × 6%

$$= (1277 + 70) \times 6\% = \text{BHD } 80.820$$
- Unemployment Insurance = (basic salary + Social allowance) × 1%

$$= (1277 + 70) \times 1\% = \text{BHD } 13.470$$
- Total deduction = Pension Fund Contribution + Unemployment Insurance + Housing bank loan

$$= 80.820 + 13.470 + 171 = \text{BHD } 265.290$$
- Net salary = (1277 + 140) – 265.290 = BHD1151.710

Teaching with technology
Ask the student to solve the exercise page 53- B.

Teaching Instruction
Explain to the students example (2-5-2) on Pages 52

Chapter Resources

Resource	Below Average	In Average	Over Average
Teacher's Guide	Page 59	Page 60	Page 61
Lesson Resources	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson

Formative assessment:
Ask the students to solve exercises page54 (Text Book.)



Text book Exercises



General Questions

2Q – Page 59: Ahmed worked the following hours during the month of Ramadan from 13 April 2021 to 12 May 2021:

Week	FRI	SAT	SUN	MON	TUE	WED	THU
1	09 APR	10 APR	11 APR	12 APR	13 APR	14 APR	15 APR
	0	8	8	8	6	6	6
2	16 APR	17 APR	18 APR	19 APR	20 APR	21 APR	22 APR
	6	4	6	6	6	5	0
3	23 APR	24 APR	25 APR	26 APR	27 APR	28 APR	29 APR
	0	6	5	6	6	6	5
4	30 APR	01 MAY	02 MAY	03 MAY	04MAY	05 MAY	06 MAY
	6	0	6	6	6	6	6
5	07 MAY	08 MAY	09 MAY	10 MAY	11 MAY	12 MAY	13 MAY
	0	6	6	6	4	6	0

Calculate the wage for the month of Ramadan, if you know that the average hourly wage is BHD 3.500.

Solution:

Number of hours: week 1 = $6 + 6 + 6 = 18$ hours

week 2 = $6 + 4 + 6 + 6 + 6 + 5 = 33$ hours

week 3 = $6 + 5 + 6 + 6 + 6 + 5 = 34$ hours

week 4 = $6 + 6 + 6 + 6 + 6 + 6 = 36$ hours

week 5 = $6 + 6 + 6 + 4 + 6 = 28$ hours

Total Working Hours = 149 hours

Total Regular Wage = $149 \times 3.500 = \text{BHD}521.500$



5Q – Page 60: Fill in the missing value in the following table:

No	Employee	No-produced	Rate per piece	Total pay
1	Najm	1200	???	BHD 405.000
2	Najlaa	???	0.775	BHD 387.500
3	Amer	800	1.200	???

Solution:

$$\text{Najm} = \frac{405}{120} = \text{BD } 0.3375$$

$$\text{Najlaa} = \frac{3875.500}{0.775} = 500 \text{ Pieces}$$

$$\text{Amer} = 800 \times 1.200 = \text{BD}960$$

6Q – Page 60: Aisha works as a salesperson a monthly salary of HBD 450, with a commission of 1.5% on the first BHD3000 of merchandise sold, and 2% thereafter. If the total sales for the month BHD5500. What is her total salary?

Solution:

Basic Salary = BD450.

Commission for first BD3000 = $3000 \times 1.5\% = \text{BD}45$

Commission for over BD3000 = $(5500 - 3000) \times 2\% = \text{BD}50$

Total Salary = $450 + 45 + 50 = \text{BD}545$.

7Q – Page 60: Find the missing value in the following table:

No	Employee	Salary BHD	Total Sales BHD	Commission		Total Salary
				Rate	BHD	
1	Tariq	500	5000	1%	50	BHD 550
2	Majed	320	10000	2%	200	BHD 520
3	Awatef	610	5000	3%	150	BHD 760





Unit 3

Discounts and Pricing Goods



3

Learning Objective

By the end of this unit, the student should be able to:

- ▶ calculating discounts, selling price and purchase price.
- ▶ calculating customs and tariffs.
- ▶ pricing goods.
- ▶ preparing the invoice.



Unit 3: Discounts and Pricing Goods – part 1

Lesson Notes

3.1 Trade Discount:

Explain to students the meaning of trade discount:

A discount is an amount deducted from the list price.

Manufactures and distributors give retailers trade discount as incentives for a sale and cash discount as incentives for paying promptly. Discount are usually established by discount rates.

Given is percent of decimal form, based on the money owed.

The discount, then, is a percentage of the list price.

Most products go from the manufacturer to the consumer by way of the wholesale merchant (wholesaler or distributor) and the retail merchant (retailer).



The Focus

Before the Lesson:

Discuss about the meaning Discount.

During the Lesson:

- 1- Define trade Discount
- 2- Calculating discounts and selling price

After the Lesson:

The student able to count net price after trade discount.



Important Points 3-1-1:

▶ Trade Discount = **List Price** × Discount Rate

▶ Discount Rate = $\frac{\text{Trade Discount}}{\text{List Price}} \times 100$



▶ **List Price** = $\frac{\text{Net Price}}{\text{Complement of Trade Discount Rate}}$





Example 3-1-2:

- ▶ Retailer's net price is BHD160 for Air-Conditioning with a list price of BHD200. What is the discount rate?



Solution:

- Trade Discount = List Price - Net Price

$$= 200 - 160$$

$$= \text{BHD } 40$$
- Discount Rate = $\frac{\text{Trade Discount}}{\text{List Price}} \times 100$
- Discount Rate = $\frac{40}{200} \times 100 = 20\%$

2- Teaching Reinforcement Question:

Ask the students to study pages 66– 67-68 (Text book.)

3- Formative Assessment.

Ask the student to solve the exercise (1) page 70 During the class period by using problem solving strategy.



Example 3-1-3:

- ▶ A car workshop made a special offer through instagram to buy three tires (while) and the fourth is for Free If the value of each one is BHD20. What is the net price and discount rate?

Solution:

- Net Price = List Price - Trade Discount

$$= 80 - 20 = \text{BHD}60$$
- Discount Rate = $\frac{\text{Trade Discount}}{\text{List Price}} \times 100$
- Discount Rate = $\frac{20}{80} \times 100 = 25\%$

Study Instructions:
 Recalculate example pages 67-68-69 text book.





Exercises 3-1-1:

1. The list price of a window type air-conditioner is BHD180, the net price BHD151. What is the trade discount?
2. The list price of a motor bike is BHD3000. A manufacturer gives a 20% discount to all retailers. What is the trade discount and net price (payment)?
3. The list price of a sewing machine is BHD122.990.
A manufacturer gives a 30% discount to all retailers. What is the trade discount?
4. The list price of a washing machine is BHD275 the net price BHD225. What is the discount rate?
5. A Manufacturer's net price is BHD58.950 for a fan with a list price of BHD72.990. What is the discount rate to the nearest percentage?
6. Complete the invoice if you know the following: A publisher's net price is BHD13.200 for a book with a list price of BHD16.500.

Teaching with technology

Ask the student to solve the exercise (2) page 70.

Teaching Instruction

Explain to the students example (3-1-4) & (3-1-5) on pages 71.

➤ Ask the students to use the following table:

Chapter Resources			
Resource	Below Average	In Average	Over Average
Teacher's Guide	Page 70 (Ex. 4)	Page 70 (Ex. 5)	Page 70 (Ex. 6)
Lesson Resources	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson

Formative assessment:

Ask the students to solve exercises page 72 (Text Book.)

Unit 3: Discounts and Pricing Goods – part 2

Lesson Notes

3.2 Cash Discount:

Explain to students:

Manufacturers and wholesalers always give a discount for early payment. This kind of discount is called cash discount. You should know that the cash discount is subtracted after trade discount but before transportation charges are added. You should also know the common language that use for the cash discount before starting the examples. The following table lists the meaning of some trade terms which might appear on the invoices.

Meaning of Some Trade Terms That Might Appear on the Invoices

Terms	Meaning
3/10	3% discount if payment made within 10 days of invoice date.
1/30	1% discount if payment made within 30 days of invoice date.
2/10, E.O.M.	2% discount within 10 days of beginning of next month (E.O.M. means End Of Month).
n/30	Net within 30 days of invoice date.
3/10,n/30, R.O.G.	3% within 10 days of Receipt Of Goods (R.O.G.), net from 11 th to 30 th day.

The Focus

Before the Lesson:

Revision about the meaning Trade Discount.

During the Lesson:

- 1- Define cash discount
- 2- Calculating cash discount

After the Lesson:

The student able to count net price after trade and cash discount.



**Example 3-2-1:**

- ▶ Adam received an invoice dated 04th July 2022 from **Phone store**, that shows a net price of BHD 450 with the terms 2/10, n/30.
- Find the latest date the cash discount is allowed.
 - How much will he pay on 12 July 2022?
 - How much will he pay assuming on 16 July 2022?

Solution:

- a- The cash discount is allowed up to and including 10 days from the invoice date 04th July 2022.
- b- On 12 July 2022:**
- $$\begin{aligned}\text{Cash Discount} &= \text{Net Price} \times \text{Cash Discount} \\ &= 450 \times 2\% = \text{BHD } 9 \\ \text{Net amount} &= \text{Net Price} - \text{Cash Discount} \\ &= 450 - 9 = \text{BHD } 441\end{aligned}$$
- c- On 16 July 2022:** Pay the net price of invoice BHD450 without cash discount.

2- Teaching Reinforcement**Question:**

Explain to students' example pages 74–75 (Textbook.)

3- Formative Assessment.

Ask the student to solve the exercise 3-2-1 (Ex1, page 76) During the class period by using problem solving strategy.

**Example 3-2-2:**

- ▶ The goods listed on the ABB Tools Store invoice shown were received on 26th March 2022 and the bill was paid on 2nd April 2022. How much was the amount paid?

Solution:

The 4% discount applies since payment was made within 10 days of receipt of goods.

$$\begin{aligned}\text{Cash Discount} &= (\text{Net price} - \text{Freight}) \times \text{Cash discount} \\ &= (726.310 - 29.850) \times 4\% = \text{BHD } 27.860 \\ \text{Total Paid} &= \text{Net Price} - \text{Cash Discount} \\ &= 726.310 - 27.860 = \text{BHD } 698.45\end{aligned}$$

- a) On 12 July 2021:**

$$\begin{aligned}\text{Cash Discount} &= \text{Net Price} \times \text{Cash Discount} \\ &= 450 \times 2\% = \text{BD } 9 \\ \text{Net amount} &= \text{Net Price} - \text{Cash Discount} \\ &= 450 - 9 = \text{BD } 441\end{aligned}$$

- b) On 16 July 2021:** Pay the net price of invoice BD 450 without
c) cash discount.

Study Instructions:

Ask the students to solve homework exercise (3-2-1) – Ex1, page 76.





Exercises 3-2-1:

► Find the amount paid for each of the following invoices:

1. Date received: January 24, 2022; date paid: February 2, 2022.

Balance	987	000
Freight	36	000
Total BHD	1,023	000
Date:	05-01-2022	
Terms:	3/10, 1/30, n/60	

2. Date received: September 5, 2022; date paid: October 7, 2022.

Balance	5,682	000
Freight	318	000
Total BHD	6,000	000
Date:	02-09-2022	
Terms:	3/10, E. O. M.	

Teaching with technology

Ask the student to solve the exercise page 76.

Teaching Instruction

Explain to the students example (3-2-1) & (3-2-2) on Pages 74-75

Chapter Resources

Resource	Below Average	In Average	Over Average
Teacher's Guide	Page 76 (Ex2)	Page 76 (Ex3)	Page 76 (Ex4)
Lesson Resources	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson

Formative assessment:

Ask the students to solve exercises page 49 (Text Book.)



Unit 3: Discounts and Pricing Goods – part 3

Lesson Notes

3.3 Value Added Tax (VAT):

Explain to the students:

VAT is imposed on the import and supply of Goods and Services at each stage of production and distribution, including “Deemed Supplies”

VAT:

- ▶ VAT is an indirect tax on consumer spending. It is collected on supplies of goods and services as well as on imports of goods and services into Bahrain.

Bahrain introduced VAT on 1 January 2022. The standard rate will be 10%. Certain goods and services will be subject to a zero-rate

Example 3-3-1:

- ▶ Fahad bought the following from supermarket. Calculate the value added tax and Excise Goods for the following purchases:



Milk 1 liter

BHD 0.450



Tv 21” inch

BHD 50.000



Energy Drinks

BHD 1.250

Solution:

- VAT Milk 1 liter = 0.450 × 0% = BHD 0.000
- VAT Tv 21” = 50.000 × 10% = BHD5.000
- Excise Goods Energy Drinks = 1.250 × 100% = BHD 1.250
- Total VAT & Excise Goods = BHD 6.250
- Total Pay = (0.450 + 50.000 + 1.250) + 6.250 = BHD57.950

The Focus

Before the Lesson:

Revision about calculating cash discount.

During the Lesson:

1- Count total payment after VAT

2- Count tariff in Bahrain

After the Lesson:

The student able to count total payment after discount, VAT and tariff.

3.4 Tariff in the Kingdom of Bahrain:

Explain to the students:

Duty %	Example of common goods
Free Duty Exempt	Fresh vegetable and fruits, fresh or frozen fish, dairy, meat, all other alive animals that are used for human consumption, books, magazines, catalogues, and all other printed papers for advertising. Includes 428 listed commodities, mostly food and medical products
10%	All imported items like clothes, perfumes, cars, electronics like television, videos, and calculator.
100%	Tobacco and Tobacco related products.
125%	Alcoholic beverages.

2- Teaching Reinforcement

Question:

Explain to the students example (3-3-1) & (3-4-2) pages 80 & 82 (Text book.)

3- Formative Assessment.

Ask the student to solve the exercise 3-4-1 (page 83- 2) During the class period by using problem solving strategy.



Example 3-4-2:

- Carrefour Stores imported the following items last month:
- Quantity of fresh vegetables and fruits amounting to BHD1,780.
 - Electronic items amounting to BHD23,420.
 - Cigarettes and tobacco amounting to BHD 1,910.400.

Calculate how much customs Carrefour Stores paid at customs for all these items.

Solution:

- Fresh vegetable and fruits Duty Free (Duty Exempt)
- Customs on electronica items = Amount paid × Rate of Customs
= 23,420 × 10% = BHD2,342.
- Customs on cigarettes and tobacco = 1,910.400 × 100%
= BHD1,910.400
- Total Customs = 2,342+ 1,910.400 = BHD4,252.400

Study Instructions:
Read text book pages 77 to 81-.





Exercises 3-4-1:

1. Find value added tax for the following:

- BHD 6.500 Gasoline for vehicles
- BHD 12.850 School uniforms
- BHD 8000 A new extension to an existing building
- BHD 188 Mobile phone services
- BHD 161.250 Interest payments on loans

2. Find the unknown factors in the following table:

Item	List Price	Trade Discount	Net Price	VAT	Amount Payment
Home Internet	BHD 18.000	??%?	BHD14.400	BHD...	BHD.....
Motor Oil	BHD.....	10%	BHD.....	BHD...	BHD18.000
Fees of Cheque Books	BHD 10.000	XXX	BHD.....	BHD...	BHD.....
Car Spare Parts	BHD	5%	BHD.....	BHD...	BHD199.500

Teaching with technology

Ask the student to solve the exercise page 83- 3.

Teaching Instruction

Explain to the students example (3-4-2) on Pages 82

➤ Ask the students to use the following table:

Chapter Resources			
Resource	Below Average	In Average	Over Average
Teacher's Guide	Page 83 (EX1.)	Page 83 (EX2.)	Page 83 (EX4.)
Lesson Resources	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson

Formative assessment:

Ask the students to solve exercises page54 (Text Book.)



Unit 3: Discounts and Pricing Goods – part 4

3.5 Pricing Goods Based on Cost Price:

Explain to the students:

- ▶ The difference between the selling price and the cost of any goods is called the mark-up.
 - Amount of Mark-up based on cost = Selling price – Cost
 - Percentage of Mark- up = $\frac{\text{Selling Price} - \text{Cost}}{\text{Cost}} \times 100$

Lesson Notes

The Focus

Before the Lesson:

Revision about discounts, VAT and tariff.

During the Lesson:

- 1- Count mark up based on cost.
- 2- Count mark up based on Selling.
- 3- Count mark-down.

After the Lesson:

The student able to count selling piece.

Example 3-5-1:

- ▶ A retailer's cost for a digital camera was BHD210.500. The camera was sold for BHD250.500. What was the mark-up amount and percentage based on cost?

Solution:

- Amount of Mark-up based on cost = Selling price – Cost

$$= 250.500 - 210.500$$

$$= \text{BHD}40$$
- Percentage of Mark- up = $\frac{\text{Selling Price} - \text{Cost}}{\text{Cost}} \times 100$

$$= \frac{250.500 - 210.500}{210.500} \times 100 = 19\%$$



3.6 Pricing Goods Based on Cost Price:

Explain to the students:

You know that sometimes mark-up is stated as a percentage of the cost while others can be stated as a percentage of the selling price. To find it you should divide the **mark-up amount by the selling price** and convert to a percentage. In this case we **call the mark-up as a margin of profit**. The formula is:

▶ Amount of Margin of Profit = Selling Price – Cost

▶ Percentage of Margin of Profit = $\frac{\text{Selling Price} - \text{Cost}}{\text{Selling Price}} \times 100$



Example 3-6-1:

- ▶ A retailer sells a television that costs BHD525.750 for BHD679.950. What is the percentage of mark-up based on the selling price or margin of profit (to the nearest percentage)?



Solution:

• Amount of Margin of Profit = Selling Price - Cost

$$= 679.950 - 525.750$$

$$= \text{BHD}154.200.$$

• Percentage of Margin of Profit = $\frac{\text{Selling Price} - \text{Cost}}{\text{Selling Price}} \times 100$

$$= \frac{679.950 - 525.750}{679.950} \times 100$$

$$= 22.68\%$$

2- Teaching Reinforcement Question:

Explain to the students example (3-5-1) & (3-5-2) pages 86 &87 (Text book.)

3- Formative Assessment.

Ask the student to solve the exercise 3-5-2 (page 88). During the class period by using problem solving strategy.

Study Instructions:
Read text book pages 85 to 89-.



3.7 Mark-Down:

Explain to the students :

Sometimes a retailer marks down the prices of the goods on display with a view to clearing them from the shelves

- ▶ Mark-Down = Regular Price – Sale Price
- ▶ Percentage Amount of Mark-Down = $\frac{\text{Regular Price} - \text{Sale Price}}{\text{Regular Price}} \times 100$
- ▶ Mark-Down = Regular Price x Percentage Amount of Mark-Down

Teaching with technology

Ask the student to solve the exercise page 92.



Example 3-7-3:

- ▶ A tailor has a suit for sale marked at BHD35.000 which is shop-soiled. He marks it down by 33⅓%. What will its sale price be (round to the nearest fils)?



Solution:

1) Finding the mark-down:

$$\text{Mark-down} = \text{Percentage of Mark-down} \times \text{Regular price}$$

$$= 33\frac{1}{3}\% \times 35.000 = \text{BHD}11.667$$

2) Subtract the Mark-down from the Regular price:

$$\text{Sale price} = \text{Regular price} - \text{Mark-down}$$

$$= 35.000 - 11.667 = \text{BHD}23.333$$

Teaching Instruction

Explain to the students example (3-6-2) on Pages 91.

▶ Ask the students to use the following table:

Chapter Resources			
Resource	Below Average	In Average	Over Average
Teacher's Guide	Page 97 (EX4.)	Page 98 (EX7.)	Page 99 (EX13.)
Lesson Resources	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson

Formative assessment:

Ask the students to solve exercises page54 (Text Book.)



Text book Exercises



Q2 - Page70: The list price of a motor bike is BHD3000. A manufacturer gives a 20% discount to all retailers. What is the trade discount and net price (payment)?

Solution:

$$\begin{aligned} \text{Trade Discount} &= \text{List Price} \times \text{Discount Rate} \\ &= 3000 \times 20\% = \text{BHD}600 \end{aligned}$$

$$\begin{aligned} \text{Net Price (Payment)} &= \text{List price} - \text{Trade Discount} \\ &= 3000 - 600 = \text{BHD}2400. \end{aligned}$$

Q2 - Page72: Manama Co. promoted the price of oil carton at BHD12.000 with trade discount 10% to 100 cartons and 12% for more than 100 cartons. Find the net price if the customer bought 170 cartons.

Solution:

$$\begin{aligned} \bullet \text{ Trade Discount} &= 12 \times 100 \times 10\% = \text{BHD } 120.000 \\ &= 12 \times 70 \times 12\% = \text{BHD } 100.800 \end{aligned}$$

$$\text{Total discount} = \text{BHD } 220.800$$

$$\bullet \text{ Net Price} = (170 \times 12) - 220.800 = \text{BD } 1819.200$$

Q1 - Page76: Find the amount paid for each of the following invoices:

1. Date received: January 24, 2022; date paid: February 2, 2022.

Balance	987	000
Freight	36	000
Total BHD	1,023	000
Date:	05-01-2022	
Terms:	3/10, 1/30, n/60	



Solution:

$$\begin{aligned} \text{Cash Discount} &= (\text{Net price} - \text{Freight}) \times \text{Cash discount} \\ &= (1023 - 36) \times 1\% = \text{BHD } 9.870 \\ \text{Total Paid} &= \text{Net Price} - \text{Cash Discount} \\ &= 1023 - 9.870 = \text{BHD } 1013.130 \end{aligned}$$

Q2 – Page 83: Jassim bought a new car model 2021 for BHD5300 with trade discount 10%. Also, paid the annual insurance premium BHD220. Find the following:

- a- Total VAT.
- b- Total Payment.

Solution:

- Net price = $5300 \times (100 - 10\%) = \text{BD}4770$.
- Amount = $4770 + 220 = \text{BD}4990$.
- a- Total VAT = $4990 \times 10\% = \text{BD}499$.
- b- Total Payment = $4990 + 499 = \text{BD}5489$.

Q6 – Page 88: Complete the following table:

Item	Basic Cost for Retailer BHD	Transportation Cost BHD	Retailer's Cost BHD	Selling Price BHD	Mark-up based on cost
Iron	12.990	1.05	14.040	20.980	49.43%
T.V	15.230	1.570	16.800	32.928	96%
Oven	135.600	1.140	134.460	145.250	8.02%
Stand Mixer	15.594	1.140	16.734	28.950	73%



Qa – Page 92: A retailer knows that consumers will pay at most BHD15.300 for a shirt and wants a 30% margin of profit. What is the maximum cost that the retailer may pay for the shirt?

Solution:

$$\begin{aligned}
 \text{Maximum cost} &= \text{Selling Price} \times (100\% - \text{Margin of Profit } \%) \\
 &= 15.300 \times (100\% - 30\%) \\
 &= 15.300 \times 70\% \\
 &= \text{BHD}10.710
 \end{aligned}$$

Q2 – Page 96: A book regularly priced at BHD26.250 is on sale for BHD19.950. What is the Mark-down?

Solution:

1) Finding the mark-down:

$$\begin{aligned}
 \text{Mark-down} &= \text{Regular price} - \text{Sale price} \\
 &= 26.250 - 19.950 = \text{BHD } 6.300
 \end{aligned}$$

2) Divide the Mark-down by the Regular price:

$$\begin{aligned}
 \text{Percentage of Mark-down} &= \frac{\text{Mark-down}}{\text{Regular Price}} \times 100 \\
 &= \frac{6.300}{26.250} \times 100 = 24\%.
 \end{aligned}$$





Unit 4

Simple interest



4

Learning Objective

By the end of this unit, the student should be able to:

- ▶ recognize the concept of interest.
- ▶ identify the concept of time value of money.
- ▶ explain the different types of the simple interest.
- ▶ identify the method of calculating Simple Interest for various periods
- ▶ identify the method of calculating trade & exact simple interest.



Unit 4: Simple Interest – part 1

4.2 Formula of Simple Interest and Amount:

Explain to the students:

- Principal is the money invested, deposited or borrow
- Interest Rate is the percentage (%) of the principal charged per period (year / annual).
- Time is the time period of the loan (years, months or days).

Lesson Notes

The Focus

Before the Lesson:

Revision about banking jobs

During the Lesson:

1- Count simple interest for years.

2- Count simple interest for months

3- Count simple interest for year and months.

After the Lesson:

The student able to count simple interest and amount

Important Points 4-1-2:

▶ **Simple Interest = Principal × Interest Rate × Time**

$$SI = P \times R \times T$$

▶ The general formula for finding the repayment/ total investment amount:

Repayment/ total investment amount = Simple interest + Principal

$$A = SI + P$$

$$\text{Or } A = (P \times R \times T) + P$$

Example 4-3-1: (Years)

- ▶ Huda invested BHD 5,000 in N.B.B with interest rate of 4%. How much interest would she earn after 3 years? what is the total amount of her investment?

Solution:

Simple Interest = Principal × Interest Rate × Time

$$S.I = P \times R \times T$$

$$= 5,000 \times 4\% \times 3 = \text{BHD}600$$

Amount = Principal + Simple Interest

$$A = P + S.I$$

$$= 5.000 + 600 = \text{BHD } 5.600$$

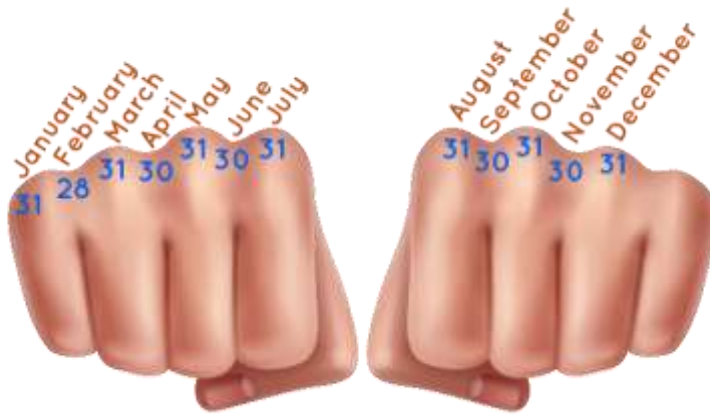


B- Simple Interest – Months:

Explain to the students:

To use the simple interest formula, the borrowing/ investing duration (Time) should be in year. If time is given in months, simply divide the number of months by 12. This is because there are 12 months in a year

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
31	28/29	31	30	31	30	31	31	30	31	30	31



2- Teaching Reinforcement Question:

Explain to the students example (4-3-1) & (4-3-2) pages 109 &110 (Text book.)

3- Formative Assessment.

Ask the student to solve the exercise(4-3-1) page 109. During the class period by using problem solving strategy.

Example 4-3-3:

- ▶ Nasser deposited BHD1,000 into a saving account at a Bank for **9 months**. The annual simple interest rate on this account is 3.5%. How much will Nasser have at the end of that period?

Solution:

$$\begin{aligned}
 \text{S.I} &= P \times R \times T \\
 &= 1,000 \times 3.5\% \times 9 \div 12 \\
 &= \text{BHD}26.250
 \end{aligned}$$

$$\begin{aligned}
 A &= P + \text{S.I} \\
 &= 1,000 + 26.250 \\
 &= \text{BHD}1,026.250
 \end{aligned}$$

Study Instructions:
Read text book pages 111-112.-



C- Simple Interest – Years & Months:

Example 4-3-4:

- ▶ BHD7,500 is deposited at simple interest rate 12% per year. Find the balance after 2 years and 5 months.

Solution:

$$\begin{aligned}
 S.I &= P \times R \times T \\
 &= 7,500 \times 12\% \times 29 \div 12 \\
 &= \text{BHD}2,175 \\
 A &= P + S.I \\
 &= 7,500 + 2,175 \\
 &= \text{BHD } 9,675
 \end{aligned}$$

Teaching with technology

111.

Teaching Instruction

Explain to the students example (4-3-4) on Pages 91.

- Ask the students to use the following table:

Chapter Resources			
Resource	Below Average	In Average	Over Average
Teacher's Guide	Page 114 (EX1.)	Page 114 (EX2.)	Page 114 (EX3.)
Lesson Resources	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson

Formative assessment:

Ask the students to solve exercises page54 (Text Book.)



Unit 4: Simple Interest – part 2

d) - Simple Interest – Days & Months::

Explain to the students:

Lesson Notes



Reading 4-3-1:

Using time table for a regular year that divide by 4 with fraction (i.e year 2023), February is 28 days.

- ▶ For a leap year that divide by 4 without fraction (i.e year 2024), February is 29 days. We may need to add 1 if the date 29 is within the period.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
31	28	31	30	31	30	31	31	30	31	30	31	31	29	31

The Focus

Before the Lesson:

Revision about count simple interest for years and months

During the Lesson:

1- Count the number of days

2- Count trade and exact interest.

3- Count factors of simple interest.

After the Lesson:

The student able to simple interest and amount for years, months and days.

Example 4-3-7:

Find the number of days from 9 November 2019 to 14 July 2020.

Solution:

Timetable (Fist year is a regular year)

$T_1 = 9 \text{ November } 2019 \text{ From Timetable} = 313 \text{ days}$

$T_2 = 14 \text{ July } 2020 \text{ From Timetable} = 195 \text{ days}$

Time (T) = $365 - T_1 + T_2$

$\therefore \text{N. of days (T)} = 365 - 313 + 195 = 247 + 1 = 248 \text{ days}$



4-4 Exact and Trade Simple Interest:

Explain to the students:

- a- Trade (Ordinary) Simple:** The calculation of this interest is based on 360 calendar days only. This method is used if it's required or when type of interest is not mentioned.
- b- Exact Simple Interest:** This interest is calculated based on the number of days per month per year using a 365 days calendar year. This method is used when its required or if currency is Sterling Pound (£) or Kuwaiti Dinar (KD).

2- Teaching Reinforcement Question:

Explain to the students example (4-3-6) & (4-4-2) pages 117 & 118 (Text book.)

3- Formative Assessment.

Ask the student to solve the exercise 3-5-2 (page 88). During the class period by using problem solving strategy.

Example 4-4-1:

Ali invested BD 2,000 at 6% for 120 days. Find the Trade and Exact simple interest?

Solution:

$$\begin{aligned} \text{Trade S.I: } T.I &= P \times R \times T \div 360 \\ &= 2,000 \times 6\% \times 120 \div 360 = \text{BHD } 40 \end{aligned}$$

$$\begin{aligned} \text{Exact S.I: } E.I &= P \times R \times T \div 365 \\ &= 2,000 \times 6\% \times 120 \div 365 = \text{BHD } 39.452 \end{aligned}$$

Study Instructions:
Read text book pages 115 & 118.



4-5- Finding Factors of Simple interest :

a- To Find the Principal:

$$P = \frac{SI}{R \times T}$$

b- To Find the Interest Rate:

$$R = \frac{SI}{P \times T}$$

c- To Find the Time:

$$T = \frac{SI}{P \times R}$$

Teaching with technology

Ask the student to solve the exercise page 119.

Teaching Instruction

Explain to the students example (4-5-1&2&3) on Pages 121&122&124.

➤ Ask the students to use the following table:

Chapter Resources			
Resource	Below Average	In Average	Over Average
Teacher's Guide	Page 122 (EX1.)	Page 123 (EX2.)	Page 125 (EX3.)
Lesson Resources	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson	1- Text book 2- Study Guide 3- Digital Educational Lesson 4- YouTube Lesson

Formative assessment:

Ask the students to solve exercises page 126-127 (Text Book.)



Text book Exercises



Q3 – Page109: Calculate the simple interest of the following:

NO	Principal	Interest Rate	Time / Period	Interest	Amount
1	BHD 2,750	10 %	8 Years	BD???	BD???
2	\$ 800	7¼ %	Six Years	\$???	\$???

Solution

$$1- \text{S.I} = P \times R \times T$$

$$= 2750 \times 10\% \times 8 = \text{BD}2200$$

$$A = P + \text{S.I}$$

$$= 2750 + 2200 = \text{BD}4950$$

Qc – Page 111: Mariam borrowed BHD38,000 as a student loan. The annual simple interest rate on her loan was 8.25%. She will be paying this loan off for 10 years. How much will Mariam pay?

Solution

$$\text{S.I} = P \times R \times T$$

$$= 38000 \times 8.25\% \times 10 = \text{BD}31350$$

$$A = P + \text{S.I}$$

$$= 38000 + 31350 = \text{BD}69350$$

Q2 – Page 113: Nasser has a saving account with simple interest rate of 3.3% in a bank. If he deposits BHD1,200. How much would his investment worth after 10 months?

Solution

$$\text{S.I} = P \times R \times T$$

$$= 1200 \times 3.3\% \times \frac{10}{12} = \text{BD}33$$

$$A = P + \text{S.I}$$

$$= 1200 + 33 = \text{BD}1233$$



Q3 – Page 114: An investment of BHD5,000 with simple interest rate of 9% annually. How much is it worth at the end of 4 years and 9 months?

Solution

$$S.I = P \times R \times T$$

$$= 5000 \times 9\% \times \frac{(4 \times 12) + 9}{12} = \text{BD}2137.5$$

$$A = P + S.I$$

$$= 5000 + 2137.5 = \text{BD}7137.5$$

$$4 + \frac{9}{12} = 4.75 \text{ years}$$

Q5 – Page 119: Abdulla deposited BHD4,000 at 8% from 5th February 2021 to 10th June 2022 - Find the interest if it is:

- Trade Interest
- Exact Interest

Solution

$T_1 = 5^{\text{th}}$ February 2021 From Timetable = 36 days

$T_2 = 10^{\text{th}}$ June 2022 From Timetable = 161 da

Time (T) = 365 - T_1 + T_2

\therefore N. of days (T) = 365 - 36 + 161 = 490 days

a) Trade S.I: $T.I = P \times R \times T \div 360$

$$= 4,000 \times 8\% \times 490 \div 360 = \text{BHD } 435.556$$

b) Exact S.I: $E.I = P \times R \times T \div 365$

$$= 4,000 \times 8\% \times 490 \div 365 = \text{BHD } 429.589$$



Q1 – Page 122: Mariam wanted to borrow some money for 18 months at 8% simple interest to pay BHD150. How much money could she borrow?

Solution

$$SI = \text{BHD}150 \qquad I = 8\% \qquad T = \frac{18}{12} = 1.5 \text{ years}$$

$$\begin{aligned} P &= \frac{SI}{R \times T} \\ &= \frac{150}{8\% \times 1.5} = \text{BD } 1250 \end{aligned}$$

Q2 – Page 123: Find the simple interest rate of a BHD5000 loan that is made for three years and requires BHD1762.500 in interest.

Solution

$$\begin{aligned} R &= \frac{SI}{P \times T} \times 100 \\ &= \frac{1762.5}{5000 \times 3} \times 100 = 11.75\% \end{aligned}$$

Q1 – Page 125: A loan of BHD16840 is borrowed at 9% simple interest and is repaid with BHD4167.90 interest. What is the duration (Time / period) of the loan?

Solution

$$\begin{aligned} T &= \frac{SI}{P \times R} \\ &= \frac{4167.90}{16840 \times 0.09} \\ &= 2.75 \text{ years} \end{aligned}$$

