مدرسة قطر للعلوم المصرفية وإدارة الأعمال الثانوية
Qatar Banking Studies and Business Administration | Secondary School

Financial Calculations
الرياضيات المالية

Grade 11 | Business

نبني اقتصاديّي المستقبل

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حضرة صاحب السّموّ

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قَسَماً بِمَنْ رَفَعَ السَّمَاءْ
قَسَمًا بِمَنْ نَشَرَ الضِّيَاءْ

قَطَرٌ سَتَبْقَى حُرَّةً
تَسْمُو بِرُوحِ الأَوْفِيَاءْ

سِيرُوا عَلَى نَهْجِ الأُلَى
وَعَلَى ضِيَاءِ الأَنْبِيَاءْ

قَطَرٌ بِقَلْبِي سِيرَةٌ
عِزٌّ وَأَمْجَادُ الإِبَاءْ

قَطَرُ الرِّجَالِ الأَوَّلِين
حُمَاتُنَا يَوْمَ النِّدَاءْ

وَحَمَائِمٌ يَوْمَ السَّلاَمْ
جَوَارِحٌ يَوْمَ الفِدَاءْ

Contents

Activity book

Chapter 1

Sales Commissions

The Sales Commission – Part 1

Activity No. 1

An employee earns a monthly basic salary of QR 12,000 plus 5% on all sales. How much will the employee earn for the month if he makes sales of QR 20,000?

Activity No. 2

An employee earns a monthly basic salary of QR 25000 plus 2% on all sales. How much will the employee earn for the month if he makes sales of QR 230000?

Activity No. 3

An employee earns a monthly basic salary of QR 18000 plus 3% on all sales. How much will the employee earn for the month if he makes sales of QR 55000?

The Sales Commission – Part 2

Activity No. 1

Abdullah is a sales manager. His basic monthly salary is QR 25000. His employer has offered him an additional 1.5% commission on monthly sales in excess of QR 350000. How much will Abdullah earn if he has monthly sales of QR 2600000?

Activity No. 2

Calculate the total salary of a real estate salesperson on a sale of QR 725,000. His basic monthly salary is QR 27,000, and he gets a commission rate of 3% on the sales which exceeds QR 150,000.

Activity No. 3

Calculate the total salary of a real estate's salesperson on a sale of QR5 2,500,000. His basic monthly salary is QR 12,000, and he gets a commission rate of 1.5% on the sales which exceeds QR 800,000.

Activity No. 4

Calculate the total salary of a real estate's salesperson on a sale of QR 600,000. His basic monthly salary is QR 15,000, and he gets a commission rate of 4% on the sales, which exceeds QR 400,000.

The Sales Commission – Part 3

Activity No. 1

A salesman receives 9% commission on sales up to $150,000, 6% on the next $250,000, and 3% on the last $420,000. Calculate the amount of commission the salesman will earn on sales of $820,000.

Activity No. 2

A salesman receives 3% commission on sales up to QAR 750,000, 2.5% on the next QAR1,050,000, and 1% on the final QAR……..... Calculate the amount of commission the salesman will earn on sales of QAR 3,420,000.

Activity No. 3

A salesperson receives 3% commission on sales up to QAR 600,000. In addition, he gets 2 % on all sales in excess of QAR 600,000 up to QAR 2,000,000. Finally, he gets 1% on all sales in excess of QAR 2,000,000. Calculate the amount of commission the salesperson will earn on sales of QAR 2,780,000.

Activity No. 4

A salesperson receives 4.5% commission on sales up to QAR 250,000. In addition, he gets 3.5 % on all sales in excess of QAR 250,000 up to QAR 550,000. Finally, he gets 1.5% on all sales in excess of QAR 550,000. Calculate the amount of commission for the salesperson if he achieved QAR 800,000.

Test Your Knowledge and Skills

Activity No. 1

An employee earns a monthly basic salary of QR 18,000 plus 3% on all sales. How much will the employee earn for the month if he makes sales of QR 55,000?

Activity No. 2

An employee earns a monthly basic salary of QR 15,000 plus 2% on all sales. How much will the employee earn for the month if he makes sales of QR 120,000?

Activity No. 3

Calculate the total salary of a real estate's salesperson on a sale of QR5 450,000. His basic monthly salary is QR 17,000, and he gets a commission rate of 4% on the sales which exceeds QR 400,000.

Activity No. 4

Calculate the total salary of a real estate's salesperson on a sale of QR 600,000. His basic monthly salary is QR 15,000, and he gets a commission rate of 4% on the sales, which exceeds QR 400,000.

Activity No. 5

A salesman receives 3% commission on sales up to QAR 750,000, 2.5% on the next QAR1,050,000, and 1% on the final QAR1,620,000. Calculate the amount of commission the salesman will earn on sales of QAR 3,420,000.

Activity No. 6

A salesman receives 3% commission on sales up to QAR 400,000, 2.5% on the next QAR 300,000, and 1% on the final QAR 500,000. Calculate the amount of commission the salesman will earn on sales of QAR 1,200,000.

Activity No. 7

A salesperson receives 4.5% commission on sales up to QAR 250,000. In addition, he gets 3.5 % on all sales in excess of QAR 250,000 up to QAR 550,000. Finally, he gets 1.5% on all sales in excess of QAR 550,000. Calculate the amount of commission for the salesperson if he achieved QAR 800,000.

Activity No. 8

A salesperson receives 2.5% commission on sales up to QAR 150,000. In addition, he gets 2 % on all sales in excess of QAR 150,000 up to QAR 300,000. Finally, he gets 1.5% on all sales in excess of QAR 300,000. Calculate the amount of commission for the salesperson if he achieved QAR 600,000.

Activity book

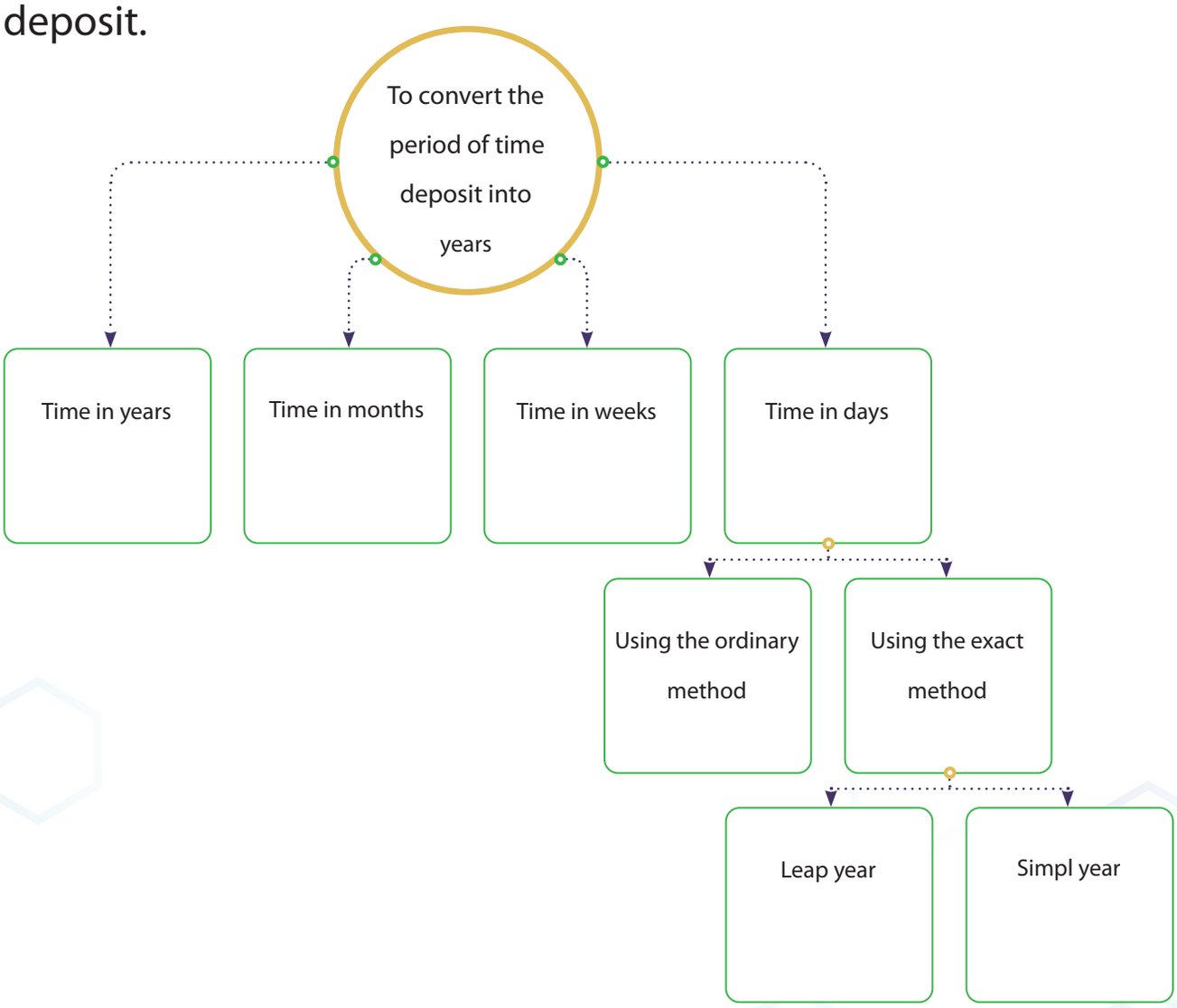
Chapter 2

Simple Interest on Time Deposits

Introduction To Simple Interest

Activity No. 1

Fill in the following diagram, which represents the period of time deposit.



Activity No. 2

Match between group A and group B

Group A	Matching	Group B
1. To convert time from weeks to years		A. We have to divide by 365/366
2. When you take a loan or finance from a bank		B. You take deposit interest from the bank
3. In the traditional banking system, the money you take from the bank is called a		C. Finance
4. To convert time from months to years		D. You have to pay lending interest
5. When you deposit money in a saving account		E. 365 days
6. In the Islamic banking system, the money you take from the bank is called a		F. Loan
7. To convert time from days to years		G. We have to divide by 12
8. The simple year has		H. 366 days
9. The leap year has		I. We have to divide by 52

Activity No. 3

Convert the following durations from months to years

Months	Years	Months	Years	Months	Years
12		30		51	
24		33		56	
36		38		59	
48		39		60	
17		40		63	
26		43		68	
28		47		75	

Activity No. 4

Convert the following durations from weeks to years

Weeks	Years	Weeks	Years	Weeks	Years
12		30		51	
24		33		56	
36		38		59	
48		39		60	
17		40		63	
26		43		68	
28		47		75	

Activity No. 5

Convert the following durations from days to years using the exact method (365/366)

Days 365	Years	Days 366	Years	Days 365	Years
30		85		365	
31		125		1000	
39		270		940	
14		366		880	
27		430		90	
45		590		3600	
60		710		300	

Activity No. 6

Convert the following durations from days to years using the ordinary method (360)

v	Years	Days	Years	Days	Years
30		85		365	
31		125		1000	
39		270		940	
14		366		880	
27		430		90	
45		590		3600	
60		710		300	

Complete the following table

Activity No. 7

Previous month	Current month	Next month
	March	
September		
		December
	June	
	October	
January		
		July
		May
April		
	August	
	February	

Calculate the period between two dates

Activity No. 8

a) 22/10/2009 , 22/10/2019

b) 12/5/2011 , 12/8/2019

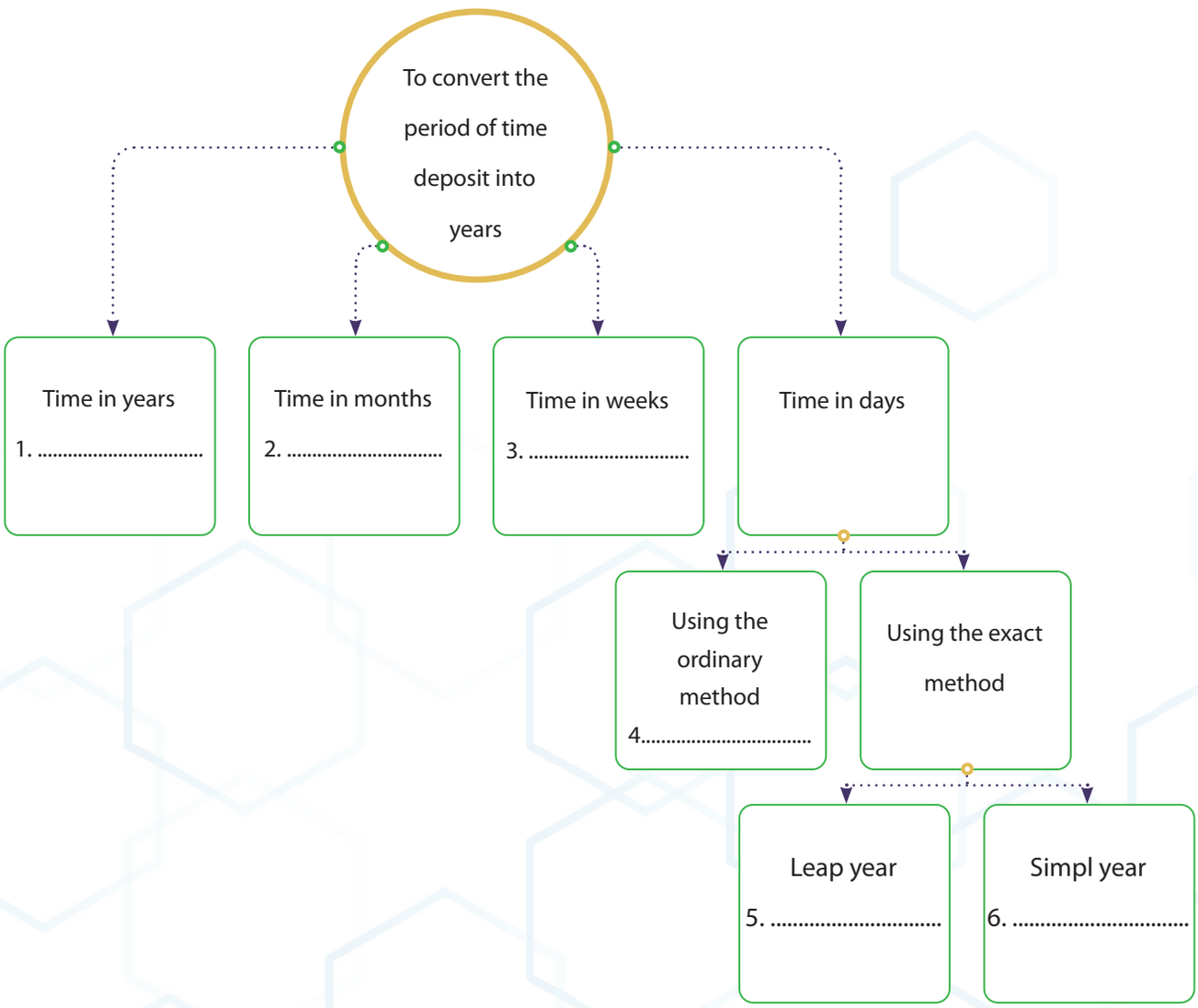
c) 19/7/2015 , 19/3/2019

d) 25/8/2013 , 25/1/2019

Test Your Knowledge and Skills

Activity No. 1

Fill in the following diagram, which represents the period of time deposit.



1.
2.
3.
4.
5.
6.

Activity No. 2

Match between group A and group B

Group A	Matching	Group B
1. We have to divide by 365/366		A. To convert time from weeks to years
2. You take deposit interest from the bank		B. When you take a loan or finance from a bank
3. Finance		C. In the traditionalbanking system, the money you take from the bank is called a
4. You have to pay lending interest		D. To convert time from months to years
5. 365 days		E. When you deposit money in a saving account
6. Loan		F. In the Islamic banking system, the money you take from the bank is called a
7. We have to divide by 12		G. To convert time from days to years
8. 366 days		H. The simple year has
9. We have to divide by 52		I. The leap year has
10. The number of weeks in a year is		J. 52 weeks

Activity No. 3

Convert the following durations from months to years

Months	Years	Months	Years	Months	Years
12		30		51	
24		33		56	
36		38		59	
48		39		60	

Activity No. 4

Convert the following durations from weeks to years

Weeks	Years	Weeks	Years	Weeks	Years
12		30		51	
24		33		56	
36		38		59	
48		39		60	

Activity No. 5

Convert the following durations from days to years using the exact method (365/366)

Days 365	Years	Days 366	Years	Days 365	Years
30		85		365	
31		125		1000	
39		270		940	
14		366		880	

Activity No. 6

Convert the following durations from days to years using the ordinary method (360)

Days	Years	Days	Years	Days	Years
30		85		365	
31		125		1000	
39		270		940	
14		366		880	

Simple Interest When Duration is in Years

Activity No. 1

Omar opened a time deposit account in QIB. He deposited QR 40,000. The simple interest rate is 1.5% yearly credited on account one time every year. Calculate the balance and interest value for 2 years.

Activity No. 2

Rajaa opened a time deposit account in QIB. He deposited QR 82,000. The simple interest rate is 4% yearly credited on account one time every year. Calculate the balance and interest value for 6 years.

Activity No. 3

Turki opened a time deposit account in QIB. He deposited QR 140,000. The simple interest rate is 3.25% yearly credited on account one time every year. Calculate the balance and interest value for 3 years.

Activity No. 4

Turki opened a time deposit account in QIB. He deposited QR 260,000. The simple interest rate is 4.75% yearly credited on account one time every year. Calculate the balance and interest value for 2 years and three quarters

Simple Interest When Duration is in Months

Activity No. 1

Jassim opened a time deposit account in QIB. He deposited QR 92,000. The simple interest rate is 3.75% yearly credited on account one time every year. Calculate the balance and interest value for 7 months.

Activity No. 2

Khalid opened a time deposit account in QIB. He deposited QR 150,000. The simple interest rate is 6% yearly credited on account one time every year. Calculate the balance and interest value for 5.5 months.

Activity No. 3

Abelazeez opened a time deposit account in CBQ. He deposited QR 180,000. The simple interest rate is 4.25% yearly credited on account one time every year. Calculate the balance and interest value for 670 days using the 365 exact method.

Activity No. 4

Saeed opened a time deposit account in CBQ. He deposited QR 40,000. The simple interest rate is 2.50% yearly credited on account one time every year. Calculate the balance and interest value for 725 days using the 365 exact method.

Activity No. 5

Jaber opened a time deposit account in QIB. He deposited QR 279,000. The simple interest rate is 5.75% yearly credited on account one time every year. Calculate the balance and interest value for 47 weeks.

Simple Interest When Time is in Days, The 366 Exact Method

Activity No. 1

Jassim opened a time deposit account in QIB. In 01/03/2012, he deposited QR 57,000. The simple interest rate is 2% yearly credited on account one time every year. Calculate the balance and interest value in 31/12/2012 using the 366 exact method.

Activity No. 2

Omar opened a time deposit account in QIB. He deposited QR 81,000 in 01/07/2012. The simple interest rate is 3.25% yearly credited on account one time every year. Calculate the balance and interest value in 31/12/2012 using the 366 exact method.

Activity No. 3

Ali opened a time deposit account in QIB. He deposited QR 137,000 in 20/01/2012. The simple interest rate is 2% yearly credited on account one time every year. Calculate the balance and interest value in 31/12/2012 using the 366 exact method.

Activity No. 4

Ali opened a time deposit account in QIB. He deposited QR 52,000 in 03/02/2012. The simple interest rate is 1.50% yearly credited on account one time every year. Calculate the balance and interest value in 31/06/2012 using the 366 exact method.

Simple Interest When Time is in Days, The 360 Ordinary Method

Activity No. 1

Abdullah opened a time deposit account in QIB. In 01/11/2013 he deposited QR 41,000. The simple interest rate is 3.75% yearly credited on account one time every year. Calculate the balance and interest value in 31/12/2013 using the 360 ordinary method.

Activity No. 2

Saoud opened a time deposit account in QIB. He deposited QR 230,000 in 01/02/2008. The simple interest rate is 1.25% yearly credited on account one time every year. Calculate the balance and interest value in 31/12/2013 using the 360 ordinary method.

Activity No. 3

Abelazeez opened a time deposit account in CBQ. He deposited QR 609,000 in 01/04/2012. The simple interest rate is 3.5% yearly credited on account one time every year. Calculate the balance and interest value in 31/12/2013 using the 360 ordinary method.

Activity No. 4

Abelazeez opened a time deposit account in CBQ. He deposited QR 260,000 in 01/06/2012. The simple interest rate is 2% yearly credited on account one time every year. Calculate the balance and interest value in 31/12/2013 using the 360 ordinary method.

The Relationship Between the Exact and Ordinary Methods

Activity No. 1

Abdullah opened a time deposit account in QIB using the 365 exact method. If Abdullah got QAR 12,000. Find the interest value using the 360 ordinary method.

Activity No. 2

Ahmad opened a time deposit account in QIB using the 365 exact method. If Ahmad got QAR 5,720. Find the interest value using the 360 ordinary method.

Activity No. 3

Hamad opened a time deposit account in QIB using the 365 exact method. If Hamad got QAR 28,130. Find the interest value using the 360 ordinary method.

Activity No. 4

Jassim opened a time deposit account in QIB using the 366 exact method. If Jassim got QAR 5,000. Find the interest value using the 360 ordinary method.

Activity No. 5

Mohamed opened a time deposit account in QIB using the 366 exact method. If Mohamed got QAR 2,400. Find the interest value using the 360 ordinary method.

Activity No. 6

Reda opened a time deposit account in QIB using the 366 exact method. If Reda got QAR 8,240. Find the interest value using the 360 ordinary method.

Activity No. 7

If you know that, the difference between the 360 ordinary and 365 exact method is QAR 500. Find the interest value using the 360 ordinary and 365 exact method.

Activity No. 8

If you know that, the difference between the 360 ordinary and 365 exact method is QAR 340. Find the interest value using the 360 ordinary and 365 exact method.

Activity No. 9

If you know that, the difference between the 360 ordinary and 365 exact method is QAR 390. Find the interest value using the 360 ordinary and 365 exact method.

Activity No. 10

If you know that, the difference between the 360 ordinary and 366 exact method is QAR 130. Find the interest value using the 360 ordinary and 366 exact method.

Activity No. 11

If you know that, the difference between the 360 ordinary and 366 exact method is QAR 160. Find the interest value using the 360 ordinary and 366 exact method.

Activity No. 12

If you know that, the difference between the 360 ordinary and 366 exact method is QAR 628. Find the interest value using the 360 ordinary and 366 exact method.

Simple Interest for More Than One Deposit

Activity No. 1

Saed has time deposits in three banks, QIB, QNB, and CBQ. In each of these banks, the starting balance is $ 43,000; 123,000; 78,000. The annual interest rate for each bank is 1.5%; 0.75%; 1.25%. The deposit time for each amount is 72 days; 210 days; 307 days. Compute the interest value and total amount for the three accounts using the 365 exact method.

Activity No. 2

Saed has time deposits in three banks, QIB, QNB, and CBQ. In each of these banks the starting balance is $ 43,000; 123,000; 78,000. The annual interest rate for each bank is 1.5%; 0.75%; 1.25%. The deposit time for each amount is 72 days; 210 days; 307 days. Compute the interest value and total amount for the three accounts using the 366 exact method.

Activity No. 3

Saed has time deposits in three banks, QIB, QNB, and CBQ. In each of these banks, the starting balance is $ 43,000; 123,000; 78,000. The annual interest rate for each bank is 1.5%; 0.75%; 1.25%. The deposit time for each amount is 72 days; 210 days; 307 days. Compute the interest value and total amount for the three accounts using the 360 ordinary method.

Activity No. 4

Jaber has time deposits in three banks, QIB, QNB, and Doha Bank. In each of these banks the starting balance is QAR 61,000; 35,000; 92,000. The annual interest rate for each bank is 1.25%; 2%; 2.75%. The deposit time for each amount is 134 days; 48 days; 461 days. Compute the interest value and total amount for the three accounts using the 365 exact and the 360 ordinary methods.

Activity No. 5

Jassim has time deposits in 4 banks, QIB, Al khalij Commercial, Barwa, Almashreq . In each of these banks the starting balance is QAR 20,000; 37,000; 92,000, 258,000. The annual interest rate for each bank is 1%; 1.50%; 0.50%; 1.75%. The deposit time for each amount is 282 days; 547 days; 840 days; 423 days. Compute the interest value and total amount for the four accounts using the 366 exact and the 360 ordinary methods.

Activity No. 6

Abdullah has time deposits in 4 banks, QIB, Al khalij Commercial, Barwa, Almashreq. In each of these banks the starting balance is QAR 60,000; 41,000; 97,000, 38,000. The annual interest rate for each bank is 1.50%; 1.75%; 1.25%; 2.75%. The deposit time for each amount is 290 days; 310 days; 140 days; 120 days. Compute the interest value and total amount for the four accounts using the 366 exact and the 360 ordinary methods.

Test Your Knowledge and Skills

Activity No. 1

Turki opened a time deposit account in QIB. He deposited QR 140,000. The simple interest rate is 3.25% yearly credited on account one time every year. Calculate the balance and interest value for 3 years.

Activity No. 2

Turki opened a time deposit account in QIB. He deposited QR 260,000. The simple interest rate is 4.75% yearly credited on account one time every year. Calculate the balance and interest value for 2 years and three quarters.

Activity No. 3

Turki opened a time deposit account in QIB. He deposited QR 185,000. The simple interest rate is 2.75% yearly credited on account one time every year. Calculate the balance and interest value for 9 months.

Activity No. 4

Jaber opened a time deposit account in Barwa. He deposited QR 54,000. The simple interest rate is 5% yearly credited on account one time every year. Calculate the balance and interest value for 8 months.

Activity No. 5

Farajj opened a time deposit account in QIB. He deposited QR 110,000 in 01/04/2013. The simple interest rate is 4% yearly credited on account one time every year. Calculate the balance and interest value in 31/12/2013

Activity No. 6

Omar opened a time deposit account in ibq. He deposited QR 68,750. The simple interest rate is 4% yearly credited on account one time every year. Calculate the balance and interest value for 39 weeks.

Activity No. 7

Ali opened a time deposit account in QIB. He deposited QR 192,000. The simple interest rate is 3.75% yearly credited on account one time every year. Calculate the balance and interest value for for 17 weeks.

Activity No. 8

Abelazeez opened a time deposit account in CBQ. He deposited QR 180,000. The simple interest rate is 4.25% yearly credited on account one time every year. Calculate the balance and interest value for 670 days using the 365 exact method.

Activity No. 9

Saeed opened a time deposit account in CBQ. He deposited QR 40,000. The simple interest rate is 2.50% yearly credited on account one time every year. Calculate the balance and interest value for 725 days using the 365 exact method.

Activity No. 10

Ali opened a time deposit account in QIB. He deposited QR 137,000 in 20/01/2012. The simple interest rate is 2% yearly credited on account one time every year. Calculate the balance and interest value in 31/12/2012 using the 366 exact method.

Activity No. 11

Ali opened a time deposit account in QIB. He deposited QR 52,000 in 03/02/2012. The simple interest rate is 1.50% yearly credited on account one time every year. Calculate the balance and interest value in 31/06/2012 using the 366 exact method.

Activity No. 12

Abelazeez opened a time deposit account in CBQ. He deposited QR 609,000 in 01/04/2012. The simple interest rate is 3.5% yearly credited on account one time every year. Calculate the balance and interest value in 31/12/2013 using the 360 ordinary method.

Activity No. 13

Abelazeez opened a time deposit account in CBQ. He deposited QR 260,000 in 01/06/2012. The simple interest rate is 2% yearly credited on account one time every year. Calculate the balance and interest value in 31/12/2013 using the 360 ordinary method.

Activity No. 14

Jassim has time deposits in 4 banks, ibq, Al khalij Commercial, Barwa, Almashreq . In each of these banks the starting balance is QAR 20,000; 37,000; 92,000, 258,000. The annual interest rate for each bank is 1%; 1.50%; 0.50%; 1.75%. The deposit time for each amount is 282 days; 547 days; 840 days; 423 days. Compute the interest value and total amount for the four accounts using the 366 exact method.

Activity No. 15

Saed has time deposits in three banks, QIB, QNB, and CBQ. In each of these banks, the starting balance is $ 43,000; 123,000; 78,000. The annual interest rate for each bank is 1.5%; 0.75%; 1.25%. The deposit time for each amount is 72 days; 210 days; 307 days. Compute the interest value and total amount for the three accounts using the 360 ordinary method.

Activity No. 16

Abdullah has time deposits in 4 banks, QIB, Al khalij Commercial, Barwa, Almashreq. In each of these banks the starting balance is QAR 60,000; 41,000; 97,000, 38,000. The annual interest rate for each bank is 1.50%; 1.75%; 1.25%; 2.75%. The deposit time for each amount is 290 days; 310 days; 140 days; 120 days. Compute the interest value and total amount for the four accounts using the 365 exact method.

Activity No. 17

Abdullah opened a time deposit account in QIB using the 365 exact method. If Abdullah got QAR 12,000. Find the interest value using the 360 ordinary method.

Activity No. 18

Ahmad opened a time deposit account in QIB using the 365 exact method. If Ahmad got QAR 5,720. Find the interest value using the 360 ordinary method.

Activity No. 19

Mohamed opened a time deposit account in QIB using the 366 exact method. If Mohamed got QAR 2,400. Find the interest value using the 360 ordinary method.

Activity No. 20

Reda opened a time deposit account in QIB using the 366 exact method. If Reda got QAR 8,240. Find the interest value using the 360 ordinary method.

Activity No. 21

If you know that, the difference between the 360 ordinary and 365 exact method is QAR 340. Find the interest value using the 360 ordinary and 365 exact method.

Activity No. 22

If you know that, the difference between the 360 ordinary and 365 exact method is QAR 390. Find the interest value using the 360 ordinary and 365 exact method.

Activity No. 23

If you know that, the difference between the 360 ordinary and 366 exact method is QAR 130. Find the interest value using the 360 ordinary and 366 exact method.

Activity No. 24

If you know that, the difference between the 360 ordinary and 366 exact method is QAR 160. Find the interest value using the 360 ordinary and 366 exact method.

Finding The Principal For a Time Deposit

Activity No. 1

A principal amount is invested for 3 years at annual rate of 2.5%. The total amount at maturity is $25,000. Find the principal amount and the interest value.

Activity No. 2

A principal amount is invested for 60 months at annual rate of 4.75%. The total amount at maturity is QAR 264,800. Find the principal amount and the interest value.

Activity No. 3

Jaber wants to finance his university tution fees. He agreed with QNB to invest a principal amount as a time deposit at 6.5% for 180 weeks, to get QAR 350,000. Find the principal amount and the interest value.

Activity No. 4

Abelazeez opened a time deposit account in CBQ. He deposited a principal amount for 718 days at 5% yearly credited on account one time every year, and finally he got QAR 142,930. Calculate the principal and interest value using the 365 exact and 360 ordinary methods.

Activity No. 5

Jassim has time deposits in three banks, QIB, QNB, and CBQ. In each of these banks the annual interest rate is 3.5%; 2.75%; 4.25%. The deposit time for each amount is 180 days; 365 days; 1000 days. The total amount for each deposit is QAR 214,000; 126,000; 184,000. Compute the interest value and principal for the three accounts using the 366 exact and the 360 ordinary methods.

Activity No. 6

Ali has time deposits in 4 banks, QIB, Al khalij Commercial, Barwa, Almashreq. The annual interest rate for each bank is 1.75%; 2.50%; 2.50%; 1.75%. The deposit time for each amount is 270 days; 430 days; 150 days; 260 days. The total amount for each deposit is QAR 124,000; 178,000; 261,000; 52,400. Compute the interest value and principal for the four accounts using the 366exact and the 360 ordinary methods.

Finding The Duration of Time Deposit

Activity No. 1

Mejeb opened a time deposit in City bank. He deposited QR 380,000 @ 3.50% yearly interest rate. Finally, he got a total amount of QR 410,800. Calculate the duration of the deposit in years.

Activity No. 2

Taher opened a time deposit in QIB. He deposited QR 150,000 @ 3% yearly interest rate. Finally he got a total amount of QR 158,000. Calculate the duration of the deposit in months.

Activity No. 3

Faisal opened a time deposit in HSBC. He deposited QR 720,000 @ 5% yearly interest rate. Finally he got a total amount of QR 752,400. Calculate the duration of the deposit using the 366 exact and 360 ordinary methods.

Activity No. 4

Khalifa opened a time deposit in Alkhalej bank. He deposited QR 57,000 @ 4% yearly interest rate. Finally he got a total amount of QR 64,000. Calculate the time of the deposit using the 365 exact and 360 ordinary methods.

Activity No. 5

Find the duration of deposit if the interest is $324, the Principal is $4,800, and the rate is 9%. Express time in days, based on a 360-day year.

Activity No. 6

Find the difference between ordinary interest and 365 exact interest on $8,000,000 at 9% annually for 180 days.

Activity No. 7

Ali has time deposits in 4 banks, QIB, Al khalij Commercial, Barwa, Almashreq. In each of these banks the starting balance is QAR 70,000; 55,000; 48,000, 110,000. The annual interest rate for each bank is 1.75%; 2.50%; 2.50%; 1.75%. The total amount for each deposit is QAR 94,000; 78,000; 61,000; 152,400. Compute the duration of each deposit using the 365 exact and the 360 ordinary methods.

Finding The Rate of Time Deposit

Activity No. 1

Seoud opened a time deposit in Barwa bank. He deposited QR 130,000 for 1 and half year. Finally he got a total amount of QR 135,600. Calculate the deposit interest rate of the deposit.

Activity No. 2

Hamad opened a time deposit in Doha Bank. He deposited QR 30,000 for 3 years. Finally he got a total amount of QR 36,200. Calculate the deposit interest rate of the deposit.

Activity No. 3

Faisal opened a time deposit in HSBC. He deposited QR 110,000 for 30 months. Finally he got a total amount of QR 118,200. Calculate the deposit interest rate of the deposit.

Activity No. 4

Khalifa opened a time deposit in Alkhalej bank. He deposited QR 50,000 for 75 weeks. Finally, he got a total amount of QR 53,900. Calculate the deposit interest rate of the deposit.

Activity No. 5

Ahmed invested QAR 150,000 as a time deposit in The United Arab Bank. He got QAR 159,750 after 519 days. Calculate the deposit interest rate using the 366 exact and the 360 ordinary methods.

Activity No. 6

Abdelazeez invested QAR 275,000 as a time deposit in The United Arab Bank. He got QAR 283,250 after 690 days. Calculate the deposit interest rate using the 366 exact and the 360 ordinary methods.

Activity No.7

Omar has time deposits in 4 banks, QIB, Al khalij Commercial, Barwa, Almashreq. In each of these banks the starting balance is QAR 78,000; 50,000; 31,000, 11,000. The total amount for each deposit is QAR 80,000; 54,000; 34,000; 13,400. Theduration of the deposits are 250 days; 300; 350; 400. Compute the deposit interest rate of each deposit using the 365 exact and the 360 ordinary methods.

Test Your Knowledge and Skills

Activity No. 1

A principal amount is invested for 60 months at annual rate of 4.75%. The total amount at maturity is QAR 264,800. Find the principal amount and the interest value.

Activity No. 2

Abelazeez opened a time deposit account in CBQ. He deposited a principal amount for 718 days at 5% yearly credited on account one time every year, and finally he got QAR 142,930. Calculate the principal and interest value using the 365 exact and 360 ordinary methods.

Activity No.3

Ali has time deposits in 4 banks, ibq, Al khalij Commercial, Barwa, Almashreq. The annual interest rate for each bank is 1.75%; 2.50%; 2.50%; 1.75%. The deposit time for each amount is 270 days; 430 days; 150 days; 260 days. The total amount for each deposit is QAR 124,000; 178,000; 261,000; 52,400. Compute the interest value and principal for the four accounts using the 366 exact and the 360 ordinary methods.

Activity No.4

Jassim has time deposits in three banks, QIB, QNB, and CBQ. In each of these banks the annual interest rate is 3.5%; 2.75%; 4.25%. The deposit time for each amount is 180 days; 365 days; 1000 days. The total amount for each deposit is QAR 214,000; 126,000; 184,000. Compute the interest value and principal for the three accounts using the 366 exact and the 360 ordinary methods.

Activity No. 5

Mejeb opened a time deposit in City bank. He deposited QR 380,000 @ 3.50% yearly interest rate. Finally, he got a total amount of QR 410,800. Calculate the duration of the deposit in years.

Activity No. 6

Mejeb opened a time deposit in City bank. He deposited QR 200,000 @ 1.75% yearly interest rate. Finally, he got a total amount of QR 210,800. Calculate the duration of the deposit in years.

Activity No. 7

Faisal opened a time deposit in HSBC. He deposited QR 110,000 for 30 months. Finally he got a total amount of QR 118,200. Calculate the deposit interest rate of the deposit.

Activity No. 8

Abdelazeez invested QAR 275,000 as a time deposit in The United Arab Bank. He got QAR 283,250 after 690 days. Calculate the deposit interest rate using the 366 exact and the 360 ordinary methods.

Activity book

Chapter 3

Simple Interest on Saving Accounts

Current Account Statement without Interest

Activity No. 1

Omar opened a current account in QIB in 17/03/2013. The following table represents the bank account statement for 3 months. Find the balance in 30/06/2013.

Entry Date	Operation	Dr	Cr	Balance
01/04/2013	B			15000
17/04/2013	D		4000	
27/04/2013	W	8000		
30/04/2013	D		6800	
01/05/2013	B			
11/05/2013	W	3000		
24/05/2013	D		6000	
29/05/2013	W	4900		
01/06/2013	B			
07/06/2013	W	2000		
26/06/2013	D		51000	
28/06/2013	D		11000	
30/06/2013	B			

Activity No. 2

Khalifa opened a current account in QNB in 24/06/2013. The following table represents the bank account statement for 3 months. Find the balance in 30/09/2013.

Entry Date	Operation	Dr	Cr	Balance
01/07/2013	B			49000
18/07/2013	D		23000	
21/07/2013	W	5000		
26/07/2013	D		37000	
30/07/2013	D		22000	
01/08/2013	B			
04/08/2013	W	14000		
15/08/2013	D		15000	
31/08/2013	W	10000		
01/09/2013	B			
09/09/2013	W	6100		
17/09/2013	D		13000	
25/09/2013	D		7200	
30/09/2013	B			

Activity No. 3

Khaled opened a current account in QDB in 23/06/2013. The table represents the bank statement for 3 months. Find the balance in 30/09/2013.

Entry Date	Operation	Dr	Cr	Balance
01/07/2013	B			120,000
23/07/2013	W	15,000		
30/07/2013	W	26,000		
01/08/2013	B			
07/08/2013	W	580		
20/08/2013	D		32,890	
31/08/2013	D		53,000	
01/09/2013	B			
11/09/2013	W	8,200		
27/09/2013	D		3,000	
30/09/2013	D		10,000	
30/09/2013	W	7,900		
30/09/2013	B			

Activity No. 4

Khaled opened a current account in QDB in 13/06/2013. The table represents the bank statement for 6 months. Find the balance in 31/12/2013.

Entry Date	Operation	Dr	Cr	Balance
01/07/2013	B			49000
23/07/2013	W	5000		
01/08/2013	B			
07/08/2013	W	14000		
31/08/2013	D		23000	
01/09/2013	B			
11/09/2013	W	4800		
30/09/2013	I			
01/10/2013	B			
20/10/2013	D		1000	
01/11/2013	B			
18/11/2013	D		7000	
01/12/2013	B			
21/12/2013	W	8300		
31/12/2013	B			

Interest on Saving Account (Monthly Minimum Balance)

Activity No. 1

Omar opened a saving account in QIB in 17/03/2013. The following table represents the bank account statement for 3 months. The interest is 2% calculated on Monthly Minimum Balance, and credited on the account quarterly. Find the balance in 30/06/2013.

Entry Date	Operation	Dr	Cr	Balance	Minimum Balance	Rate	Time	Interest on Minimum Balance
01/04/2013	B			15000				
17/04/2013	D		4000					
27/04/2013	W	8000						
30/04/2013	D		6800					
01/05/2013	B							
11/05/2013	W	3000						
24/05/2013	D		6000					
29/05/2013	W	4900						
01/06/2013	B							
07/06/2013	W	2000						
26/06/2013	D		51000					
28/06/2013	D		11000					
30/06/2013	I							

Activity No. 2

Khalifa opened a saving account in QNB in 24/06/2013. The following table represents the bank account statement for 3 months. The interest is 2.75% calculated on Monthly Minimum Balance, and credited on the account quarterly. Find the balance in 30/09/2013.

Entry Date	Oper-ation	Dr	Cr	Balance	Minimum Balance	Rate	Time	Interest on Minimum Balance
01/07/2013	B			49000				
18/07/2013	D		23000					
21/07/2013	W	5000						
26/07/2013	D		37000					
30/07/2013	D		22000					
01/08/2013	B							
04/08/2013	W	14000						
15/08/2013	D		15000					
31/08/2013	W	10000						
01/09/2013	B							
09/09/2013	W	6100						
17/09/2013	D		13000					
25/09/2013	D		7200					
30/09/2013	I							

Activity No. 3

Khaled opened a saving account in QDB in 23/06/2013. The table represents the bank statement for 3 months. The interest is 1.25% calculated on Monthly Minimum Balance, and credited on the account quarterly. Find the balance in 30/09/2013.

Entry Date	Oper-ation	Dr	Cr	Balance	Minimum Balance	Rate	Time	Interest on Minimum Balance
01/07/2013	B			120,000				
23/07/2013	W	15,000						
30/07/2013	W	26,000						
01/08/2013	B							
07/08/2013	W	580						
20/08/2013	D		32,890					
31/08/2013	D		53,000					
01/09/2013	B							
11/09/2013	W	8,200						
27/09/2013	D		3,000					
30/09/2013	D		10,000					
30/09/2013	W	7,900						
30/09/2013	I							

Interest on Saving Account (Monthly Average Balance)

Activity No. 1

Omar opened a saving account in QIB in 17/03/2013. The following table represents the bank account statement for 3 months. The interest is 2% calculated on monthly average balance, and credited on the account quarterly. Find the balance in 30/06/2013.

Entry Date	Operation	Dr	Cr	Balance	Monthly Average Balance	Rate	Time	Interest on Average Balance
01/04/2013	B			15000				
04/04/2013	D		18500					
09/04/2013	Almeera	1500						
19/04/2013	Qatairways	5900						
20/04/2013	Qtel bill	1180						
28/04/2013	Salary trns		20000					
01/05/2013	B							
11/05/2013	W	3000						
17/05/2013	D		27000					
29/05/2013	W	4900						
01/06/2013	B							
13/06/2013	W	9300						
26/06/2013	D		51000					
30/06/2013	D		11000					
30/06/2013	I							

Activity No. 2

Omar opened a saving account in QIB in 26/03/2013. The following table represents the bank account statement for 3 months. The interest is 2.75% calculated on monthly average balance, and credited on the account quarterly. Find the balance in 30/06/2013.

Entry Date	Operation	Dr	Cr	Balance	Monthly Average Balance	Rate	Time	Interest on Average Balance
01/04/2013	B			73000				
04/04/2013	D		18500					
06/04/2013	D		4200					
17/04/2013	Kahrama	3470						
26/04/2013	Vodafone	600						
28/04/2013	Salary trns		20000					
30/04/2013								
01/05/2013	B							
11/05/2013	W	3000						
17/05/2013	D		27000					
29/05/2013	W	4900						
01/06/2013	B							
07/06/2013	W	2000						
13/06/2013	W	9300						
30/06/2013	D		11000					
30/06/2013	I							

Activity No. 3

Khalifa opened a saving account in QNB in 24/06/2013. The following table represents the bank account statement for 3 months. The interest is 2.75% calculated on Monthly Average Balance, and credited on the account quarterly. Find the balance in 30/09/2013.

Entry Date	Operation	Dr	Cr	Balance	Monthly Average Balance	Rate	Time	Interest on Average Balance
01/07/2013	B			30000				
07/07/2013	Kahrama	1700						
06/07/2013	Qatairways	8000						
07/07/2013	Qtel bill	450						
26/07/2013	D		8350					
30/07/2013	Salary transf		35000					
01/08/2013	B							
28/08/2013	W	17300						
31/08/2013	W	10000						
01/09/2013	B							
09/09/2013	W	6100						
10/09/2013	W	4800						
17/09/2013	D		13000					
25/09/2013	D		7200					
30/09/2013	I							

Activity No. 4

Khaled opened a saving account in QDB in 13/06/2013. The table represents the bank statement for 6 months. The interest is 1.5% calculated on Monthly Average Balance, and credited on the account quarterly. Find the balance in 31/12/2013.

Entry Date	Operation	Dr	Cr	Balance	Monthly Average Balance	Rate	Time	Interest on Average Balance
01/07/2013	B			49000				
23/07/2013	W	5000						
01/08/2013	B							
07/08/2013	W	14000						
31/08/2013	D		23000					
01/09/2013	B							
11/09/2013	W	4800						
30/09/2013	I							
01/10/2013	B							
20/10/2013	D		1000					
01/11/2013	B							
18/11/2013	D		7000					
01/12/2013	B							
21/12/2013	W	8300						
31/12/2013	I							

Test Your Knowledge and Skills

Activity No. 1

Khalifa opened a saving account in QNB in 24/06/2013. The following table represents the bank account statement for 3 months. The interest is 2.25% calculated on Monthly Minimum Balance, and credited on the account quarterly. Find the balance in 30/09/2013.

Entry Date	Operation	Dr	Cr	Balance	Minimum Balance	Rate	Time	Interest on Minimum Balance
01/07/2013	B			175000				
18/07/2013	D		23000					
21/07/2013	W	5000						
26/07/2013	D		37000					
30/07/2013	D		22000					
01/08/2013	B							
04/08/2013	W	14000						
15/08/2013	D		15000					
31/08/2013	W	10000						
01/09/2013	B							
09/09/2013	W	6100						
17/09/2013	D		13000					
25/09/2013	D		7200					
30/09/2013	I							

Activity No. 2

Omar opened a saving account in QIB in 17/03/2013. The following table represents the bank account statement for 3 months. The interest is 2.50% calculated on Monthly Minimum Balance, and credited on the account quarterly. Find the balance in 30/06/2013.

Entry Date	Operation	Dr	Cr	Balance	Minimum Balance	Rate	Time	Interest on Minimum Balance
01/04/2013	B			40000				
17/04/2013	D		4000					
27/04/2013	W	8000						
30/04/2013	D		6800					
01/05/2013	B							
11/05/2013	W	3000						
24/05/2013	D		6000					
29/05/2013	W	4900						
01/06/2013	B							
07/06/2013	W	2000						
26/06/2013	D		51000					
30/06/2013	D		11000					
30/06/2013	I							

Activity No. 3

Khalifa opened a saving account in QNB in 24/06/2013. The following table represents the bank account statement for 3 months. The interest is 1.25% calculated on Monthly Average Balance, and credited on the account quarterly. Find the balance in 30/09/2013.

Entry Date	Operation	Dr	Cr	Balance	Monthly Average Balance	Rate	Time	Interest on Average Balance
01/07/2013	D		63000					
07/07/201	Kahrama	1700						
06/07/2013	Qatairways	8000						
07/07/2013	Qtel bill	450						
23/07/2013	W	2900						
26/07/2013	D		8350					
30/07/2013	Salary transf		35000					
01/08/2013	B							
04/08/2013	W	14000						
31/08/2013	W	10000						
01/09/2013	B							
09/09/2013	W	6100						
25/09/2013	D		7200					
30/09/2013	I							

Activity No. 4

Khaled opened a saving account in QDB in 13/06/2013. The table represents the bank statement for 6 months. The interest is 0.75% calculated on Monthly Average Balance, and credited on the account quarterly. Find the balance in 31/12/2013.

Entry Date	Operation	Dr	Cr	Balance	Monthly Average Balance	Rate	Time	Interest on Average Balance
01/07/2013	B			92000				
23/07/2013	W	5000						
30/07/2013	W	2000						
01/08/2013	B							
07/08/2013	W	14000						
20/08/2013	D		60000					
31/08/2013	D		23000					
01/09/2013	B							
11/09/2013	W	4800						
27/09/2013	D		7200					
30/09/2013	W	5900						
30/09/2013	I							

Activity book

Chapter 4

The Discount and Present Value Using Simple Interest

The Ordinary Discount and the Ordinary Present Value

Activity No. 1

The future (face) value of a debt is QAR 90,000. The repayment of the debt will be after 7 months from now @ 5% interest. Find the ordinary present value and ordinary discount value if the debt is repaid now.

Activity No. 2

The future (face) value of a debt is QAR 41,800. The repayment of the debt will be after 9 months from now @ 4.25% interest. Find the ordinary present value and ordinary discount value if the debt is repaid now.

Activity No. 3

The future (face) value of a debt is QAR 110,000. The repayment of the debt will be after 26 weeks from now @ 3.25% interest. Find the ordinary present value and ordinary discount value if the debt is repaid now.

Activity No. 4

The future (face) value of a debt is QAR 168,000. The repayment of the debt will be after 42 weeks from now @ 4.50% interest. Find the ordinary present value and ordinary discount value if the debt is repaid now.

Activity No. 5

The future (face) value of a debt is QAR 34,000. The repayment of the debt will be after 320 days from now @ 5.50% interest. Find the ordinary present value and ordinary discount value if the debt is repaid now using the 360 ordinary method.

Activity No. 6

The future (face) value of a debt is QAR 81,900. The repayment of the debt will be after 170 days from now @ 6% interest. Find the ordinary present value and ordinary discount value if the debt is repaid now using the 360 ordinary method.

Activity No. 7

The future (face) value of a debt is QAR 29,100. The repayment of the debt will be after 330 days from now @ 7.50% interest. Find the ordinary present value and ordinary discount value if the debt is repaid now using the 360 ordinary method.

Activity No. 8

The future (face) value of a debt is QAR 344,000. The repayment of the debt will be after 110 days from now @ 4.50% interest. Find the ordinary present value and ordinary discount value if the debt is repaid now using the 360 ordinary method.

The Exact Discount and The Exact Present Value

Activity No. 1

The future (face) value of a debt is QAR 60,000. The repayment of the debt will be after 10 months from now @ 6% interest. Find the exact present value and exact discount value if the debt is repaid now.

Activity No. 2

The future (face) value of a debt is QAR 17,500. The repayment of the debt will be after 7 months from now @ 3.75% interest. Find the exact present value and exact discount value if the debt is repaid now.

Activity No. 3

The future (face) value of a debt is QAR 230,000. The repayment of the debt will be after 35 weeks from now @ 5.75% interest. Find the exact present value and exact discount value if the debt is repaid now.

Activity No. 4

The future (face) value of a debt is QAR 172,000. The repayment of the debt will be after 48 weeks from now @ 2.50% interest. Find the exact present value and exact discount value if the debt is repaid now.

Activity No. 5

The future (face) value of a debt is QAR 34,000. The repayment of the debt will be after 300 days from now @ 5.50% interest. Find the exact present value and exact discount value if the debt is repaid now using the 365 exact method.

Activity No. 6

The future (face) value of a debt is QAR 81,900. The repayment of the debt will be after 170 days from now @ 6% interest. Find the exact present value and exact discount value if the debt is repaid now using the 365 exact method.

Activity No. 7

The future (face) value of a debt is QAR 29,100. The repayment of the debt will be after 330 days from now @ 7.50% interest. Find the exact present value and exact discount value if the debt is repaid now using the 366 exact method.

Activity No. 8

The future (face) value of a debt is QAR 344,000. The repayment of the debt will be after 110 days from now @ 4.50% interest. Find the exact present value and exact discount value if the debt is repaid now using the 366 exact method.

The Relationship Between the Ordinary and Exact Discount

Activity No. 1

The future (face) value of a debt is QAR 36,630. The ordinary present value of the debt is QAR 36,297. What is the exact present value of the debt and exact discount?

Activity No. 2

The future (face) value of a debt is QAR 55,000. The ordinary present value of the debt is QAR 51,000. What is the exact present value of the debt and exact discount?

Activity No. 3

The future (face) value of a debt is QAR 110,000. The ordinary present value of the debt is QAR 104,000. What is the exact present value of the debt and exact discount?

Activity No. 4

The future (face) value of a debt is QAR 60,000. The ordinary present value of the debt is QAR 57,000. What is the exact present value of the debt and exact discount?

Activity No. 5

If you know that, the difference between the ordinary and exact discount is QAR 7000. The debt will be paid after 10 months. The simple interest rate is 7%. Find:

- the exact discount value.
- the exact present value of debt.
- the future value of debt.

Activity No. 6

If you know that, the difference between the ordinary and exact discount is QAR 3500. The debt will be paid after 7 months. The simple interest rate is 5.5%. Find:

- the exact discount value.
- the exact present value of debt.
- the future value of debt.

Activity No. 7

If you know that, the difference between the ordinary and exact discount is QAR 2,100. The debt will be paid after 5 months. The simple interest rate is 6.25%. Find:

- the exact discount value.
- the exact present value of debt.
- the future value of debt.

Activity No. 8

If you know that, the difference between the ordinary and exact discount is QAR 1,400. The debt will be paid after 11 months. The simple interest rate is 6%. Find:

- the ordinary discount value.
- the ordinary present value of debt.
- the future value of debt.

Activity No. 9

If you know that, the difference between the ordinary and exact discount is QAR 3,900. The debt will be paid after 12 months. The simple interest rate is 5.75%. Find:

- the ordinary discount value.
- the ordinary present value of debt.
- the future value of debt.

Activity No. 10

If you know that, the difference between the ordinary and exact discount is QAR 7,400. The debt will be paid after 8 months. The simple interest rate is 4.50%. Find:

- the ordinary discount value.
- the ordinary present value of debt.
- the future value of debt.