

Business Math: Share and Deposit Accounts

S1307

FIRST EDITION

Written by Jim Jerving and Keith Peterson

Center for Professional Development
Credit Union National Association, Inc.

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Table of Contents

Acknowledgments	v
About the Authors	v
Preface	vii
Introduction	1
Chapter 1: Basic Math and Definitions	5
Chapter 2: Share Account Dividends	17
Chapter 3: Account Balances and Dividend Calculations	33
Chapter 4: Dividend Compounding and Annual Percentage Held	45
Chapter 5: Helping Members Reach Savings Goals	59
Appendix A: Key Deposit Account Equations	67
Appendix B: Answers to Activities	69
Appendix C: Glossary	73
Appendix D: Test Questions	75
Index	83

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Preface

About These Courses

The STAR courses are not intended to provide legal advice, and we do not guarantee the information is appropriate for all state-chartered credit unions. If you have any legal or policy questions, contact your credit union president or your credit union league.

How to Use This Course

If you are sight-impaired and choose to have this course read to you, we suggest that a spouse, partner, friend, or volunteer from your credit union or credit union league assist you. You can also check with your local library regarding reader services available in your community.

If you are participating in a seminar, your instructor will get you started.

If you are completing this course through correspondence study, please follow this procedure:

1. Read the chapter opening objectives to get an idea of what's ahead.
2. Read the text. Complete the activities as you read each chapter. (Answers for many of the activities are included in the appendices.)
3. When you have read the text and completed the activities, take the competency test.

Competency Test Instructions

Each course in the STAR program has a competency test of 40 multiple choice questions. To successfully complete the course, you must correctly answer at least 32 questions. You can refer to the text as you take the test, but the test must be completed individually.

If you are participating in a seminar, your instructor will provide directions. If you are completing this course through correspondence study, please follow this procedure:

1. Locate the test questions in the last appendix of the text.
2. Find a quiet place where you can work undisturbed and at your own pace.
3. Record your answers on the answer sheet that was mailed to you along with the text. Follow the instructions on this sheet for marking answers.
4. Complete the identification section on the answer sheet and make sure you have marked an answer for each question.
5. Mail the scannable answer sheets to CUNA's National Processing Center in the envelope provided. Mail competency test answer sheets to your league education department.

Course Requirements

Core Courses Required for All Tracks

choose one of these modules		S1304 Introduction to Credit Unions A1004 Introduction to Credit Unions and S20 Member Relations S30 Security
Tracks	Track Courses	
Member Services		S100 Money and Negotiable Instruments S110 Member Services S120 Cross-Selling
Consumer Lending		S200 The Lending Process S210 Lending Products and Regulations S220 Collections
Credit Union Accounting		S300 Basic Accounting S310 Accounting for Credit Unions S320 Credit Union Financial Analysis
Advanced Lending	choose one of these modules	S400 Bankruptcy and Court Proceedings A1006 Bankruptcy and S410 Mortgage Lending S420 Loan Marketing
Credit Union Sales	choose one of these modules	S1305 Credit Union Sales A1002 Credit Union Sales and S500 Improving and Maintaining Quality Service S520 Interpersonal Skills: Understanding Your Impact on Members
Technology	choose one of these modules	S1120 Using Technology to Improve Member Service A1009 Critical Role of Technology and S600 Credit Union Technology S620 Serving Members with Technology
Loan Officer		S700 Loan Interviewing S710 Loan Underwriting S720 Loan Servicing
Savings Plus		S800 Opening New Accounts S810 Individual Retirement Accounts S820 Investment Choices for Members
Credit Union Security		S900 Preventing Fraud S910 Security Issues
Professional Development		S1000 Develop a Career Plan S1010 Write Effectively S1020 Make Work Manageable
Member Services II		S1100 Working Effectively with Difficult Members and Staff S1110 Helping Members Understand and Solve Problems S1120 Using Technology to Improve Member Service
Financial Management		S1200 Financial Management I: Statements and Budgeting S1210 Financial Management II: Sources/Uses of Money
Presidential Series		S1300 Member Services: Exceeding Expectations S1301 Financial Counseling S1302 Transitioning from Staff to Management S1303 Communication and Telephone Skills S1304 Introduction to Credit Unions S1305 Credit Union Sales S1306 Business Math: Lending and Credit S1307 Business Math: Share and Deposit Accounts S1308 Professional Member Services S1309 Security Procedure Protocol S1310 Successful Collections S1320 Robbery Prevention and Preparation

Introduction

There are few certainties in our financial lives. Regular savings is one—it's the first step on the journey to financial independence.

Mathematics is another certainty in a culture filled with ambiguity. Many of us in the financial services industry find comfort in the realization that answers to math problems are right or wrong, black or white—there are no shades of gray.

As a trusted representative and advocate, you can help members unleash the power of regular savings and mathematics. This STAR module on *Business Math: Share and Deposit Accounts*, gives you the tools to assist members to develop and calculate savings plans. Few accomplishments could be more valued than the assistance you bring to members in helping them save regularly.

Math can be fun. Many people enjoy the certainty and magic of numbers. Part of the enjoyment of mathematics comes from explaining to members how their savings can double and even triple with regular deposits. Few assets are more important to members than the money they deposit in their credit union. They want to be assured that their savings are handled professionally and calculated accurately.

With a mastery of basic math skills, you can help members understand how their share savings accounts are calculated. You can explain account features that affect dividend calculations. Effective math skills help you provide superior member service, as well as

serve as a core competency for your job. You can also help members achieve peace of mind about their money deposited at their credit union.

Chapter 1 covers standard terms, practices, and legal requirements concerning share savings account calculations. Understanding the math of share accounts helps you respond to member questions and concerns. Formulas and calculations are presented so you can understand how your credit union's computer system automatically processes transactions and calculates dividends.

In chapter 2, you learn how to calculate share account balances and dividends, as well as how to round dividend amounts and rates. While you won't be asked to perform all the calculations in your job, understanding the math will make it easier for you to help members understand how their dividends are calculated. So, it's important that you understand the mechanics of calculating dividend rates and account balances.

In chapter 3, we discuss how to calculate accounts with minimum balance requirements, tiered-rate accounts, and stepped-rate accounts. You also learn about the regulations governing these accounts.

Chapter 4 helps you understand dividend compounding and annual percentage yield. You learn the difference between annual percentage yield and annual percentage yield earned, and why the two can differ.

Math can be fun—part of the enjoyment of mathematics comes from explaining to members how their savings can double and even triple with regular deposits.

In chapter 5, you're provided with the tools to help members develop long-range savings plans. We discuss how to estimate the growth of an investment. You also learn to use future value tables to calculate other returns, such as how quickly funds grow when the same deposit is made every year.

Special notes about the math:

- You need a calculator to complete many of the practice activities and the test.
- Variations in calculators and rounding practices may produce variations in the numbers for some of the more complicated examples. Note that the test for this course does not include calculations

beyond eight digits.

- You may want to keep a scratch pad handy for some of your calculations.

Credit unions play a fundamental role in encouraging and motivating members to save. As a not-for-profit cooperative, they typically pay better rates on savings than for-profit competitors. As a member representative and advocate, you help and encourage members to develop the regular savings habit. If you use math tools effectively to help members with their financial planning, you provide a valued benefit for members while building trust, which leads to more business for your credit union.





Icons and Play Pages


Throughout this module you will see a variety of reference icons. Each icon represents a corresponding activity or exercise that will enhance each chapter. The purpose of the activity or exercise is to allow the participant to apply a corresponding concept or theory presented in the chapter.


Each icon may also be referenced as a “play” activity. That is our goal—to encourage you to play, and at the same time learn about the major concepts


Resources


- 


Activity: An interactive exercise to further your knowledge.
- 

Calculator: A flash calculator to aid in your calculations.
- 

Community Chat: A chat room where you can discuss content with others taking the module.
- 

Field Trip: An additional resource located outside the module (for example, an instructional video).
- 

Knowledge Check: A practice activity to test what you have learned.
- 

Resource: Additional resources and information on the topic.
- 

Timeline: An interactive timeline to learn more about the history of this topic.

covered here.

In addition, the “Play Page” is a place to experience some of the interactive, online learning activities available in CUNA’s CU Advance courses.

To access the Play Page for this module, go to <http://training.cuna.org/playpage/index.html> or go to www.cuna.org and type “Play Page” into the Search Box. Select the title of this module, and then the chapter you want to review.

Enjoy!