

Chapter 2
Banking

Section 2-4

EXPLORE COMPOUND INTEREST

Objective:
Explain

Compute

Interest Income

- Simple Interest
- Compound Interest - Your principal earns interest

Example 1

What would be the **new balance** of a \$1,000 account in one year that earns a rate of 2%, compounded annually?

Step 1:

Step 2:

Example 2

Maria deposits \$1,000 in a savings account that pays 2% interest, compounded semiannually. What is her **balance** after six months?

Step 1: Determine which formula to use

Step 2: Plug in and solve

Example 2 – Now You Try It!

Alex deposits \$4,000 in a savings account that pays 5% interest, compounded semiannually. What is his balance after six months?

Step 1: Determine which formula to use

Step 2: Plug in and solve

Example 4

How much interest does \$1,000 earn in one day at an interest rate of 2%, compounded daily? What is the balance after a day?

Step 1: Find the interest earned

Step 2: Find the new balance

Example 5

Jennifer has a bank account that compounds interest daily at a rate of 1.2%.

On July 11:

- The principal is \$1,234.98.
- She withdraws \$200 for a car repair.
- She receives a \$34 check from her health insurance company and deposits it.

On July 12:

- She deposits her \$345.77 paycheck.

What is her balance at the end of the day on July 12?

Step 1:

Step 2:

July 11th:

Principal used to compute interest:

$$\text{New Balance} = \text{Prior Balance} + \text{Increases} - \text{Decreases}$$

Day's Interest rounded to the nearest cent:

$$I = PRT$$

Ending Balance:

$$\text{New Balance} = \text{Prior Balance} + \text{Increases}$$

July 12th:

Principal used to compute interest:

$$\text{New Balance} = \text{Prior Balance} + \text{Increases} - \text{Decreases}$$

Day's Interest rounded to the nearest cent:

$$I = PRT$$

Ending Balance:

$$\text{New Balance} = \text{Prior Balance} + \text{Increases}$$

Example 5 – Now You Try It!

On January 7, Joelle opened a savings account with \$900. It earned 2.1% interest, compounded daily. On January 8, she deposited her first paycheck of \$76.22.

What was her balance at the end of the day on January 8?

Assignment 2-4

Read Page 89 to 92

Do Page 93: #2-4, 6-7 a & b only, 8-11

Example 5	Date		
Opening Balance			
Deposit (+)			
Withdrawal (-)			
Principal used to compute interest			
Day's Interest rounded to the nearest cent			
Ending Balance			
Example 5: You try it!	Date		
Opening Balance			
Deposit (+)			
Withdrawal (-)			
Principal used to compute interest			
Day's Interest rounded to the nearest cent			
Ending Balance			