# Chapter 3 Study Guide: The Income Statement

## 1. Introduction to the Income Statement

- **Definition**: The **Income Statement** (also known as the **Profit and Loss Statement**) summarizes a company's revenues, expenses, and net income or loss over a specific period of time (e.g., a month, quarter, or year).
- **Purpose**: It provides insights into the company's profitability, showing how well the company generates profit from its operations.

## 2. Key Components of the Income Statement

- **Revenues (Sales)**: The amount of money earned from primary business activities (e.g., sales of goods and services).
- **Expenses**: The costs incurred to generate revenues (e.g., cost of goods sold, operating expenses).
- **Net Income (or Net Loss)**: The result of subtracting total expenses from total revenues. It indicates the company's profitability.

  The general formula for the income statement is:

  $$\text{Net Income} = \text{Revenues} - \text{Expenses}$$

- **Types of Revenues and Expenses**:
  - **Operating Revenues**: Derived from the main business activities (e.g., sales revenue).
  - **Operating Expenses**: Costs related to normal operations (e.g., rent, salaries, utilities).
  - **Non-operating Revenues and Expenses**: Derived from secondary activities (e.g., interest income, gains or losses from asset sales).

## 3. Structure of the Income Statement

- The income statement typically follows this order:
  1. **Revenues**
  2. **Cost of Goods Sold (COGS)**: The direct costs associated with producing goods or services sold by the company.
  3. **Gross Profit**: Revenues minus the cost of goods sold.

4. **Operating Expenses**: Expenses that are necessary for the day-to-day operations of the business (e.g., rent, wages).
5. **Operating Income**: Gross profit minus operating expenses.
6. **Other Revenues and Expenses**: Includes non-operating items (e.g., interest, gains/losses).
7. **Income Before Taxes**: Operating income plus or minus other revenues/expenses.
8. **Income Tax Expense**: Taxes owed based on taxable income.
9. **Net Income**: The final amount, calculated after subtracting income tax expense.

## 4. The Matching Principle

- **Matching Principle**: Under accrual accounting, expenses should be recorded in the same period as the related revenues, regardless of when the cash is paid. This ensures that the income statement accurately reflects the company's financial performance during the period.

## 5. Gross Profit vs. Operating Income

- **Gross Profit**: Represents the difference between sales and the cost of goods sold (COGS). It gives an indication of how efficiently a company is producing and selling its products.
- **Operating Income**: Represents the profitability from the company's core business activities after accounting for operating expenses. Operating income does not include non-operating items like interest or income taxes.

## 6. Earnings Per Share (EPS)

- **Earnings Per Share (EPS)** is a key metric used to assess the profitability of a company on a per-share basis. It is calculated as:

EPS = Net Income / Weighted Average Shares Outstanding

EPS is important for investors as it indicates how much profit is attributed to each share of common stock.

## 7. Importance of the Income Statement

- **Assessing Profitability**: The income statement allows stakeholders (investors, creditors, etc.) to assess how well a company is performing financially.
- **Decision-Making**: Helps investors and management decide whether the company is worth investing in or if adjustments need to be made to operations or expenses.

## 8. Key Terms to Know

- **Revenue**
- **Cost of Goods Sold (COGS)**
- **Gross Profit**
- **Operating Income**
- **Non-operating Income**
- **Income Before Taxes**
- **Net Income**
- **Earnings Per Share (EPS)**
- **Operating Expenses**
- **Accrual Accounting**
- **Matching Principle**

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# Practice Questions for Chapter 3: The Income Statement

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## 1. Classifying Income Statement Components

### Problem 1.1: Classifying Revenues and Expenses
Identify whether the following items are classified as **Revenues**, **Expenses**, or **Net Income** on the income statement:

- Sales Revenue
- Rent Expense
- Interest Income
- Cost of Goods Sold
- Income Tax Expense
- Administrative Salaries
- Net Income
- Depreciation Expense

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## 2. Preparing an Income Statement

### Problem 2.1: Preparing an Income Statement
ABC Corporation has the following financial information for the year ended December 31, 2024:

- Sales Revenue: $500,000
- Cost of Goods Sold: $200,000
- Rent Expense: $30,000
- Wages Expense: $50,000
- Depreciation Expense: $10,000
- Interest Income: $5,000
- Income Tax Expense: $15,000

Prepare an income statement for ABC Corporation.

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# 3. Calculating Gross Profit and Operating Income

### Problem 3.1: Gross Profit and Operating Income Calculation
XYZ Inc. has the following information:

- Sales Revenue: $450,000
- Cost of Goods Sold: $180,000
- Operating Expenses (e.g., rent, salaries): $120,000

Calculate:

- **Gross Profit**
- **Operating Income**

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# 4. Calculating Earnings Per Share (EPS)

### Problem 4.1: EPS Calculation
XYZ Inc. reports a **net income** of $100,000 for the year, and the company has **10,000 shares of common stock outstanding**. Calculate the **Earnings Per Share (EPS)**.

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# 5. Income Statement Analysis

### Problem 5.1: Analyzing Profitability
Company ABC has the following information for the year:

- **Revenues**: $600,000
- **Cost of Goods Sold**: $350,000

- **Operating Expenses**: $150,000
- **Income Tax Expense**: $25,000

Calculate:

- **Gross Profit**
- **Operating Income**
- **Net Income**

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# 6. Matching Principle Application

## Problem 6.1: Matching Revenues and Expenses
XYZ Corp. sold $100,000 of products in December 2024 but will not receive payment until January 2025. The company also incurred $40,000 in expenses related to this sale in December 2024. According to the **matching principle**, when should the revenue and expenses be recognized? Explain.

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# 7. Understanding Operating vs. Non-Operating Income

## Problem 7.1: Classifying Income Items
Identify whether the following are **operating income** or **non-operating income**:

- Sales Revenue from products sold
- Interest earned on bonds
- Gain on sale of equipment
- Rent income from leasing a building
- Loss on sale of investment

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# Answers to Practice Questions

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## Problem 1.1: Classifying Revenues and Expenses

- Sales Revenue → Revenue
- Rent Expense → Expense
- Interest Income → Non-operating Income

- Cost of Goods Sold → Expense
- Income Tax Expense → Expense
- Administrative Salaries → Expense
- Net Income → Net Income
- Depreciation Expense → Expense

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## Problem 2.1: Preparing an Income Statement

**ABC Corporation Income Statement for the Year Ended December 31, 2024**

- **Revenues**:
  - Sales Revenue: $500,000
- **Expenses**:
  - Cost of Goods Sold: $200,000
  - Rent Expense: $30,000
  - Wages Expense: $50,000
  - Depreciation Expense: $10,000
  - Income Tax Expense: $15,000
- **Other Income**:
  - Interest Income: $5,000
- **Net Income Calculation**:
  - **Gross Profit** = $500,000 - $200,000 = $300,000
  - **Operating Income** = $300,000 - ($30,000 + $50,000 + $10,000) = $210,000
  - **Income Before Taxes** = $210,000 + $5,000 = $215,000
  - **Net Income** = $215,000 - $15,000 = **$200,000**

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## Problem 3.1: Gross Profit and Operating Income Calculation

- **Gross Profit** = Sales Revenue - COGS = $450,000 - $180,000 = **$270,000**
- **Operating Income** = Gross Profit - Operating Expenses = $270,000 - $120,000 = **$150,000**

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## Problem 4.1: EPS Calculation

- **Earnings Per Share (EPS)** = Net Income / Weighted Average Shares Outstanding = $100,000 / 10,000 = **$10 per share**

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## Problem 5.1: Analyzing Profitability

- **Gross Profit** = Revenues - COGS = $600,000 - $350,000 = **$250,000**
- **Operating Income** = Gross Profit - Operating Expenses = $250,000 - $150,000 = **$100,000**
- **Net Income** = Operating Income - Income Tax Expense = $100,000 - $25,000 = **$75,000**

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## Problem 6.1: Matching Revenues and Expenses

- According to the **matching principle**, **both the revenue and the related expense** should be recognized in **December 2024**, as they are associated with the sale that took place in that period.

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## Problem 7.1: Classifying Income Items

- Sales Revenue from products sold → Operating Income
- Interest earned on bonds → Non-operating Income
- Gain on sale of equipment → Non-operating Income
- Rent income from leasing a building → Non-operating Income
- Loss on sale of investment → Non-operating Income