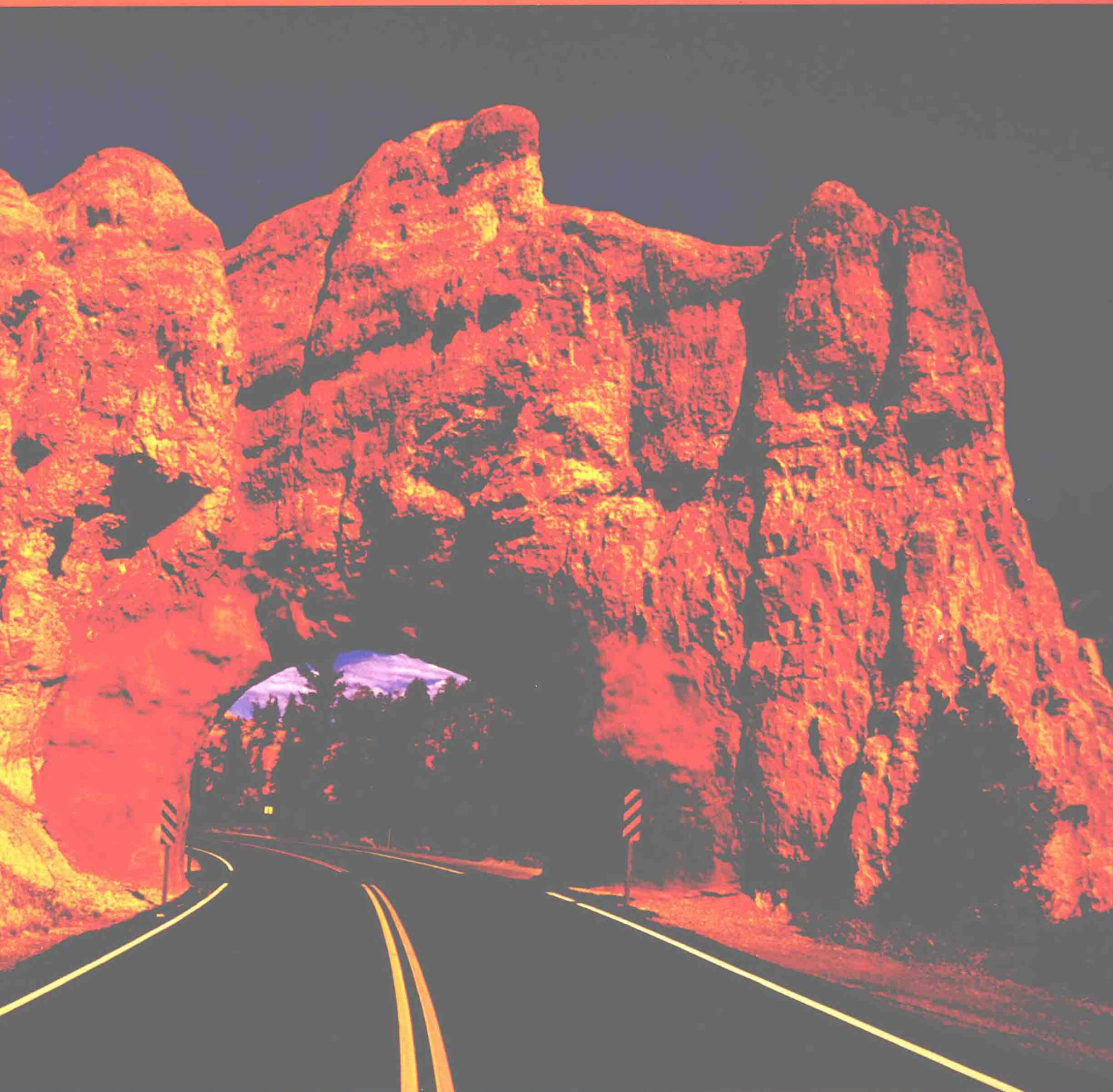


FUNDAMENTAL MANAGERIAL ACCOUNTING CONCEPTS

Third Edition



Edmonds / Edmonds / Tsay / Olds

THIRD EDITION

Fundamental Managerial ACCOUNTING Concepts

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Boston Burr Ridge, IL Dubuque, IA Madison, WI New York San Francisco St. Louis
Bangkok Bogotá Caracas Kuala Lumpur Lisbon London Madrid Mexico City
Milan Montreal New Delhi Santiago Seoul Singapore Sydney Taipei Toronto

This book is dedicated to our students whose questions have so frequently caused us to reevaluate our method of presentation that they have, in fact, become major contributors to the development of this text.



FUNDAMENTAL MANAGERIAL ACCOUNTING CONCEPTS

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"This is a good idea, and perhaps it would help with the major problem I think I encounter with managerial accounting—moving from a problem memorizing format to a problem analysis and decision format."

**Marilyn P. Salter,
University of Central
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"In general, Edmonds does a much better job of covering service and merchandising businesses than other textbooks do."

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"There is a world of difference teaching from Edmonds. It is now actually a pleasure teaching accounting to non-accounting majors. I feel they leave the course having the understanding of accounting."

**Gary Reynolds,
Ozark Technical
Community College**

NOTE FROM THE AUTHORS

Over the past 15 years, major changes in accounting education have impacted the way most college and university professors teach introductory accounting. We are gratified that our concepts approach has been so effective it has become a market leader in the change movement. We are confident our teaching approach offers students a more sound understanding of introductory managerial accounting than traditional methods.

Innovative traditionalists

We do not aim to radically transform accounting education, but instead to make it more effective. Recent trends require accounting educators to modify their teaching strategies. Technology and globalization have changed the business environment. The business environment has shifted toward service companies, especially in the United States. Traditional texts, however, emphasize accounting practices developed for manufacturing companies. This text serves the modern business environment by emphasizing decision-making concepts that apply to both service and manufacturing companies. We introduce such topics as operating leverage, cost-volume-profit analysis, relevance, and cost allocation early. Our budgeting chapter illustrates a retail company rather than a manufacturing company. Because we repeatedly emphasize decision-making concepts throughout the text, we include traditional topics like manufacturing cost flow, job-order and process costing, and recording procedures toward the end of the text.

Helping students develop critical thinking skills

Traditionally, skill development in introductory accounting has been focused at a relatively low level, concentrating primarily on comprehension and recall. Accounting education has traditionally emphasized content. Rigor has been measured by the quantity of content covered. Authors and educators have added more and more topics to the curricula and accounting textbooks have grown ever larger. This model provides little opportunity to help students develop the skills that the modern business environment they will face demands.

This text helps teachers move from the traditional educational paradigm more easily than you might imagine. The content focuses on essential concepts, reducing the amount of material you must cover. You have more time to work on skill development. The Instructors' Resource Manual provides step-by-step instructions for implementing innovative teaching methods such as active learning and group dynamics. It offers enticing short discovery learning cases which provide class-opening experiences that effectively stimulate student interest and help develop critical thinking skills. The text itself also includes many innovative features to better prepare students for the business challenges ahead in today's dynamic environment.

Tom Edmonds • Cindy Edmonds • Bor-Yi Tsay • Phil Olds • Nancy Schneider

ABOUT THE



Thomas P. Edmonds

Thomas P. Edmonds, Ph.D., holds the Friends and Alumni Professorship in the Department of Accounting at the University of Alabama at Birmingham (UAB). He has been actively involved in teaching accounting principles throughout his academic career. Dr. Edmonds has coordinated the accounting principles courses at the University of Houston and UAB. He currently teaches introductory accounting in mass sections that frequently contain more than 180 students. He has received five prestigious teaching awards including the UAB President's Excellence in Teaching Award and the distinguished Ellen Gregg Ingalls Award for excellence in classroom teaching. He has written numerous articles that have appeared in many publications including *Issues in Accounting*, the

Journal of Accounting Education, *Advances in Accounting Education*, *Accounting Education: A Journal of Theory, Practice and Research*, the *Accounting Review*, *Advances in Accounting*, the *Journal of Accountancy*, *Management Accounting*, the *Journal of Commercial Bank Lending*, the *Banker's Magazine*, and the *Journal of Accounting, Auditing, and Finance*. Dr. Edmonds is a member of the editorial board for *Advances in Accounting: Teaching and Curriculum Innovations* and *Issues in Accounting Education*. He has published four textbooks, five practice problems (including two computerized problems), and a variety of supplemental materials including study guides, work papers, and solutions manuals. Dr. Edmonds' writing is influenced by a wide range of business experience. He is a successful entrepreneur. He has worked as a management accountant for Refrigerated Transport, a trucking company. Dr. Edmonds also worked in the not-for-profit sector as a commercial lending officer for the Federal Home Loan Bank. In addition, he has acted as a consultant to major corporations including First City Bank of Houston, AmSouth Bank in Birmingham, Texaco, and Cortland Chemicals. Dr. Edmonds began his academic training at Young Harris Community College in Young Harris, Georgia. He received a B.B.A. degree with a major in finance from Georgia State University in Atlanta, Georgia. He obtained an M.B.A. degree with a concentration in finance from St. Mary's University in San Antonio, Texas. His Ph.D. degree with a major in accounting was awarded by Georgia State University. Dr. Edmonds' work experience and academic training have enabled him to bring a unique user perspective to this textbook.



Cindy D. Edmonds

Cindy D. Edmonds, Ph.D., is an Associate Professor of Accounting at the University of Alabama at Birmingham. She serves as the coordinator of the introductory accounting courses at UAB. Dr. Edmonds received the 2001 Loudell Ellis Robinson Excellence in Teaching Award. Also, in 2000 and 2001 she was one of two School of Business faculty members nominated for the Ellen Gregg Ingalls Award for excellence in classroom teaching. She has written a variety of supplemental text materials including practice problems, a study guide, work papers, and test banks. Dr. Edmonds' articles appear in numerous publications including *Advances in Accounting Education*, *Journal of Education for Business*, *Journal of Accounting Regulation*, *Advances in Accounting*, *Management Accounting*, *CMA*

Journal, *Disclosures*, and *Business & Professional Ethics Journal*. Her manuscript "Running a City on a Shoe String" received a certificate of merit award from the Institute of Management Accountants. The manuscript was used by the City of Vestavia in its application for Moody's Municipal Bond Rating. Dr. Edmonds is heavily involved in service activities. She is the 2001 president of the Birmingham Chapter of the American Society of Women Accountants. Dr. Edmonds has worked in the insurance industry, in a manufacturing company, and in a governmental agency. This work experience has enabled her to bring a real-world flavor to her writing. Dr. Edmonds holds a B.S. degree from Auburn University, an M.B.A. degree from the University of Houston and a Ph.D. degree from the University of Alabama.

AUTHORS



Bor-Yi Tsay

Bor-Yi Tsay, Ph.D., CPA is a Professor of Accounting at the University of Alabama at Birmingham (UAB) where he has taught since 1986. He has taught principles of accounting courses at the University of Houston and UAB. Currently, he teaches an undergraduate cost accounting course and an MBA accounting analysis course. Dr. Tsay received the 1996 Loudell Ellis Robinson Excellence in Teaching Award. He has also received numerous awards for his writing and publications including John L. Rhoads Manuscripts Award, John Pugsley Manuscripts Award, Van Pelt Manuscripts Award, and three certificates of merits from the Institute of Management Accountants. His articles appeared in *Journal of Accounting Education*, *Management Accounting*, *Journal of Managerial Issues*, *CPA Journal*, *CMA*

Magazine, *Journal of Systems Management*, and *Journal of Medical Systems*. He currently serves as a member of the board of the Birmingham Chapter, Institute of Management Accountants. He is also a member of the American Institute of Certified Public Accountants and Alabama Society of Certified Public Accountants. Dr. Tsay received a B.S. in agricultural economics from National Taiwan University, an M.B.A. with a concentration in Accounting from Eastern Washington University, and a Ph.D. in Accounting from the University of Houston.



Philip R. Olds

Professor Olds is Associate Professor of Accounting at Virginia Commonwealth University (VCU). He serves as the **coordinator of the introduction to accounting courses at VCU**. Professor Olds received his A.S. degree from Brunswick Junior College in Brunswick, Georgia (now Coastal Georgia Community College). He received a B.B.A. in Accounting from Georgia Southern College (now Georgia Southern University) and his M.P.A. and Ph.D. degrees are from Georgia State University. After graduating from Georgia Southern, he worked as an auditor with the U.S. Department of Labor in Atlanta, Georgia. A CPA in Virginia, Professor Olds has published articles in various professional journals and presented papers at national and regional conferences. He also served as the faculty

adviser to the VCU chapter of Beta Alpha Psi for five years. In 1989, he was recognized with an Outstanding Faculty Vice-President Award by the national Beta Alpha Psi organization.

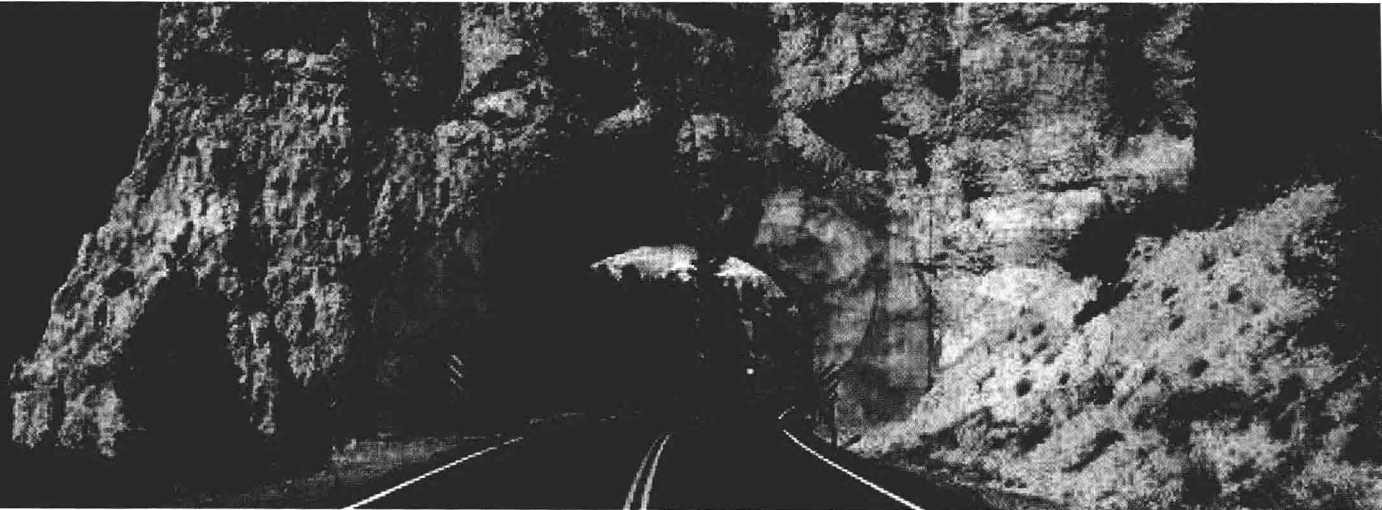


Nancy Schneider

Professor Schneider is Associate Professor of Accounting at Lynchburg College in central Virginia where she has served for many years as the lead instructor for the accounting principles courses. Since attending graduate school she has participated in the writing, reviewing, editing, checking, and revising of college-level accounting and finance textbooks, textbook supplements, and related teaching materials. She has a deep personal commitment to student learning and to finding and

sharing ways to improve college teaching. She is a recipient of the Sydnor Award for Teaching Excellence in Business at Lynchburg College and is frequently nominated by students for the College Excellence in Teaching Award. Professor Schneider initiated and organizes a highly popular annual symposium in which professors across all disciplines at the College exchange good teaching ideas. She has made numerous presentations at local and regional conferences, often related to teaching strategies, and is the coauthor of articles published in professional journals. Professor Schneider's professional activities also include active membership on the board of her local chapter of the Institute of Management Accountants where she regularly involves students in professional accounting educational meetings. Prior to teaching accounting, she was an auditor with an international public accounting firm in Atlanta and an internal auditor for a large integrated oil and gas company in Houston. Professor Schneider has maintained an active license to practice as a certified public accountant since 1980, and became a certified management accountant in 1992. She is a member of the American Institute of Certified Public Accountants and the Virginia Society of Certified Public Accountants. Professor Schneider received a Bachelor's degree in Mathematics Education with High Honors from the University of Florida in 1973, and a Master's degree in Professional Accountancy from Georgia State University in 1978.

HOW DOES THE BOOK HELP



STUDENTS SEE THE BIG PICTURE?

"I think Edmond's approach to introducing concepts, and his flow of topics is the best of any accounting textbook I have used. His approach allows me to emphasize a piece of the puzzle at a time building to the whole picture."

Gary Reynolds,
Ozark Technical
Community College

"I think students have benefited from this approach because they see the concepts in action in decision making."

Julie A. Lockhart,
Western Washington University

PRINCIPAL FEATURES

Isolating Concepts

How do you promote student understanding of concepts? We believe new concepts should be isolated and introduced individually in decision-making contexts. For example, we do not include a chapter covering cost terminology (usually Chapter 2 in traditional approaches). We believe introducing a plethora of detached cost terms in a single chapter is ineffective. Students have no conceptual framework for the new vocabulary.

Interrelationships between Concepts

Although introducing concepts in isolation enhances student comprehension of them, students must ultimately understand how business concepts interrelate. The text is designed to build knowledge progressively, leading students to integrate the concepts they have learned independently. For example, see how the concept of relevance is compared on page 138 of Chapter 4 to the concept of cost behavior (which is explained in Chapter 2) and how the definitions of direct costs are contrasted on page 186 of Chapter 5 with the earlier introduced concepts of cost behavior and cost relevance. Also, chapters 1 through 12 include a comprehensive problem designed to integrate concepts across chapters. The problem builds in each successive with the same company experiencing new conditions that require the application of across chapter concepts.

Context-Sensitive Nature of Terminology

Students can be confused when they discover the exact same cost can be classified as fixed, variable, direct, indirect, relevant, or not relevant. For example, the cost of a store manager's salary is fixed regardless of the number of customers that shop in the store. The cost of store manager salaries, however, is variable relative to the number of stores a company operates. The salary costs are directly traceable to particular stores but not to particular sales made in a store. The salary cost is relevant when deciding whether to eliminate a given store but not relevant to deciding whether to

eliminate a department within a store.

Students must learn to identify the circumstances that determine the classification of costs. The chapter material, exercises, and problems in this text are designed to encourage students to analyze the decision-making context rather than to memorize definitions.

Exercise 2–1A in Chapter 2 illustrates how the text teaches students to interpret different decision-making environments.

EXERCISE 2–1A Identifying Cost Behavior

L.O. 1

Hoover's Kitchen, a fast-food restaurant company, operates a chain of restaurants across the nation. Each restaurant employs eight people; one is a manager paid a salary plus a bonus equal to 3 percent of sales. Other employees, two cooks, one dishwasher, and four waitresses, are paid salaries. Each manager is budgeted \$3,000 per month for advertising cost.

Required

Classify each of the following costs incurred by Hoover's Kitchen as fixed, variable, or mixed.

- Manager's compensation relative to the number of customers.
- Waitresses' salaries relative to the number of restaurants.
- Advertising costs relative to the number of customers for a particular restaurant.
- Rental costs relative to the number of restaurants.
- Cooks' salaries at a particular location relative to the number of customers.
- Cost of supplies (cups, plates, spoons, etc.) relative to the number of customers.

Managerial Orientation

The overall theme of the text is to introduce concepts in the context of decision making. In the first chapter, for example, we describe how product costing affects financing availability, management motivation, and income tax considerations. In Chapter 2, we illustrate how a fixed cost structure provides a competitive operating advantage to show the effect of cost behavior on operating leverage. In Chapter 8, we focus on interpreting variances as well as computing them. The practical usefulness of management accounting information is continually reinforced.

Information Overload

The table of contents reflects our efforts to address the information overload problem. We believe existing managerial textbooks include significantly more material than can be digested by the typical managerial accounting student. In contrast with traditional texts that normally have between 18 and 20 chapters, we have limited this text to 14 chapters.

Excel Spreadsheets

Spreadsheet applications are essential to contemporary accounting practice. Students must recognize the power of spreadsheet software and know how accounting data are presented in spreadsheets. We discuss Microsoft Excel

spreadsheet applications where appropriate throughout the text. In most instances, the text illustrates actual spreadsheets. End-of-chapter materials include problems students can complete using spreadsheet software. A sample of the logo used to identify problems suitable for Excel spreadsheet solutions is shown here.

PROBLEM 2–18A Cost Behavior and Averaging

L.O. 1

Jenny Tang has decided to start Tang Cleaning, a residential housecleaning service company. She is able to rent cleaning equipment at a cost of \$600 per month. Labor costs are expected to be \$50 per house cleaned and supplies are expected to cost \$5 per house.

Required

- Determine the total expected cost of equipment rental and the average expected cost of equipment rental per house cleaned, assuming that Tang Cleaning cleans 10, 20, or 30 houses during one month. Is the cost of equipment a fixed or a variable cost?
- Determine the total expected cost of labor and the average expected cost of labor per house cleaned, assuming that Tang Cleaning cleans 10, 20, or 30 houses during one month. Is the cost of labor a fixed or a variable cost?
- Determine the total expected cost of supplies and the average expected cost of supplies per house cleaned, assuming that Tang Cleaning cleans 10, 20, or 30 houses during one month. Is the cost of supplies a fixed or a variable cost?

Excel
www.mhhe.com/edmonds3e

CHECK FIGURES

- Total supplies cost for cleaning 30 houses: \$1,500
- Total cost for 20 houses: \$1,700

WHAT'S NEW THIS EDITION?

“ The new manuscript exhibits a more personal approach in its writing style. This makes a big difference in it being “readable”. I believe that students will appreciate this new style as well. I compare it to the difference between reading a factual and informative textbook, to reading a personal letter or even an interesting novel. Kudos to Edmonds for departing from the usual and ordinary and expanding to his new vision of communicating with students.”

Steve Muller,
Valencia Community College

Revisions for **Fundamental Managerial Accounting Concepts** are in response to extensive feedback from instructors and students. Through formal reviews, instructor and student suggestions, and focus groups, we have responded with constructive changes. Detailed revisions are summarized below. However, there are two significant features.

Comprehensive Problem to Integrate Concepts Across Chapters

Chapters 1 through 12 include a comprehensive problem designed to integrate concepts across chapters. Students often fail to understand the interrelationships between various accounting concepts because they fail to distinguish between new concepts and new contexts. By studying a problem series with the same company facing different accounting issues, students can focus on particular accounting concepts without the distraction of a new setting for each concept.

User-Friendly Writing Style

Every chapter of the text has been rewritten in an easy to read and comprehend writing style. Many students are not habitual or skilled readers. If complex concepts are not described in concrete terms with familiar vocabulary, students will sometimes give up and not read the textbook at all.

Overall revisions

- The presentation of material has been simplified.
- The text has been thoroughly updated to include all relevant changes in authoritative pronouncements.
- A logo representing the focus company of each chapter has been included to add realism to these fictitious companies.
- Real companies are highlighted in blue.
- The exercises and problems have been thoroughly revised.
- All real world data have been updated to reflect information contained in the companies' most recent annual reports.
- There is an ethics case in the *Analyze, Think, Communicate* section of the end-of-chapter materials for each chapter.
- Check figures have been added to Problems in Series A.
- New supplement to chapter 13 added on Annual Report and Financial Statement Analysis Projects.

COMPREHENSIVE PROBLEM

Use the same transaction data for Magnificent Moderns, Inc. as was used in Chapter 1 (see page 00).

Required

- a. Based on these data, identify each cost incurred by the company as (1) fixed versus variable relative to the number of units produced and sold; and (2) product versus general, selling, and administrative (G, S, & A). The solution for the first item is shown as an example.

Cost Item	Fixed	Variable	Product	G, S, & A
Depreciation on manufacturing equipment	X		X	
Direct materials				
Direct labor				
Production supplies				
Rent on manufacturing facility				
Sales commissions				
Depreciation on administrative equipment				
Administrative costs (rent and salaries)				

- b. Replace the question marks in the following table to indicate the product cost per unit assuming levels of production of 5,000, 6,000, 7,000, and 8,000.

Cost of Goods Sold	\$455,000	?	?	?
Divided by Number of Units	5,000	6,000	7,000	8,000
Cost Per Unit	\$ 91	?	?	?

Name and Type of Company Used as Main Chapter Example

Chapter Title	Company Used as Main Chapter Example	Company Logo	Type of Company
Management Accounting: A Value-Added Discipline	Patillo Manufacturing Company		Manufactures wooden tables
Cost Behavior, Operating Leverage, and Profitability Analysis	Star Productions, Inc. (SPI)		Promotes rock concerts
Analysis of Cost, Volume, and Pricing to Increase Profitability	Bright Day Distributors		Sells nonprescription health food supplements
Relevant Information for Special Decisions	Premier Office Products		Manufactures printers
Cost Accumulation, Tracing, and Allocation	In Style, Inc. (ISI)		Retail clothing store
6. Cost Management in an Automated Business Environment: ABC, ABM, and TQM	Carver Soup Company (CSP)		Produces vegetable and tomato soup
7. Planning for Profit and Cost Control	Hampton Hams (HH)		Sells cured hams nationwide through retail outlets
8. Performance Evaluation	Melrose Manufacturing Company		Makes small, high-quality statues used in award ceremonies
9. Responsibility Accounting	Panther Holding Company		Furniture Manufacturing Division
Planning for Capital Investments	EZ Rentals		Rents computers, monitors, and projection equipment
Product Costing in Service and Manufacturing Entities	Ventra Manufacturing Company		Constructs mahogany jewelry boxes
Job-Order, Process, and Hybrid Cost Systems	Benchmore Boat Company		Manufactures boats
	Jamie Juice Company		Makes fruit juice

SUPPLEMENT

Annual Report and Financial Statement Analysis Projects

Annual Report Project for The Topps Company, Inc. (2003) Management's Discussion and Analysis

The annual report for The Topps Company, Inc. opens with a letter to the stockholders that describes the company's mission, products and services, customers, past performance, and future prospects. The letter is followed by a section called "Management's Discussion and Analysis" in which management talks about financial results and trends, liquidity, risk factors, and other matters deemed necessary to provide adequate disclosure to users of the report. Read The Topps Company Stockholders' Letter and Management's Discussion and Analysis on pages 1 through 11 to answer questions 1–6.

1. What are the company's two reportable business segments?
2. What were company's goals for each segment in 2003? What specific achievements resulted from these goals?
3. What percentage of the company's total sales came from the Entertainment segment?
4. What effect has inflation had on the company's operations?
5. What is management's view of the company's liquidity status for the foreseeable future? How does the company plan to meet its cash needs?
6. What caused the changes between the company's fiscal year 2003 and 2002 net sales, gross margin, and selling, general and administrative expenses?

Income Statement—Vertical Analysis

7. Using Excel, compute common-size income statements for all three fiscal years. In common-size income statements, net sales is 100% and every other number is a percent.

Required

Assume that you are Dr. Sterling's accountant. Write a memo describing a pricing strategy that resolves the apparent problem of high costs during months of low volume. Recommend in your memo the price to charge per pet treated during the month of December.

ATC 2-5

**ETHICAL DILEMMA Profitability Versus Social Conscience (Effects of Cost Behavior)**

Advances in biological technology have enabled two research companies, Bio Labs, Inc. and Scientific Associates, to develop an insect-resistant corn seed. Neither company is financially strong enough to develop the distribution channels necessary to bring the product to world markets. World Agra Distributors, Inc., has negotiated contracts with both companies for the exclusive right to market their seed. Bio Labs signed an agreement to receive an annual royalty of \$1,000,000. In contrast, Scientific Associates chose an agreement that provides for a royalty of \$0.50 per pound of seed sold. Both agreements have a 10-year term. During 2004, World Agra sold approximately 1,600,000 pounds of the Bio Labs, Inc. seed and 2,400,000 pounds of the Scientific Associates seed. Both types of seed were sold for \$1.25 per pound. By the end of 2004, it was apparent that the seed developed by Scientific Associates was superior. Although insect infestation was virtually nonexistent for both types of seed, the seed developed by Scientific Associates produced corn that was sweeter and had consistently higher yields.

World Agra Distributors' chief financial officer, Roger Weatherstone, recently retired. To the astonishment of the annual planning committee, Mr. Weatherstone's replacement, Ray Borrough, adamantly recommended that the marketing department develop a major advertising campaign to promote the seed developed by Bio Labs, Inc. The planning committee reluctantly approved the recommendation. A \$100,000 ad campaign was launched; the ads emphasized the ability of the Bio Labs seed to avoid insect infestation. The campaign was silent with respect to taste or crop yield. It did not mention the seed developed by Scientific Associates. World Agra's sales staff was instructed to push the Bio Labs seed and to sell the Scientific Associates seed only on customer demand. Although total sales remained relatively constant during 2005, sales of the Scientific Associates seed fell to approximately 1,300,000 pounds while sales of the Bio Labs, Inc. seed rose to 2,700,000 pounds.

Required

- a. Determine the amount of increase or decrease in profitability experienced by World Agra in 2006 as a result of promoting Bio Labs seed. Support your answer with appropriate commentary.
- b. Did World Agra's customers in particular and society in general benefit or suffer from the decision to promote the Bio Labs seed?
- c. Review the standards of ethical conduct in Exhibit 1–13 of Chapter 1 and comment on whether Mr. Borrough's recommendation violated any of the standards in the code of ethical conduct.
- d. Comment on your belief regarding the adequacy of the Standards of Ethical Conduct for Managerial Accountants to direct the conduct of management accountants.

ATC 2-6

**SPREADSHEET ASSIGNMENT Using Excel**

Charlie Stork rented a truck for his business on two previous occasions. Since he will soon be renting a truck again, he would like to analyze his bills and determine how the rental fee is calculated. His two bills for truck rental show that on September 1, he drove 1,000 miles and the bill was \$1,500, and on December 5, he drove 600 miles and the bill was \$1,380.

HOW DOES THE BOOK

Real World Examples

The Edmonds' text provides a variety of thought-provoking, real-world examples of managerial accounting as an essential part of the management process.

The Curious Accountant

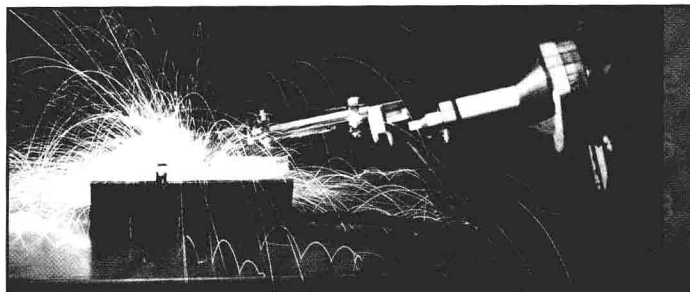
Each chapter opens with a short vignette that sets the stage and helps pique student interest. These vignettes pose a question about a real-world accounting issue related to the topic of the chapter. The answer to the question appears in a separate sidebar a few pages further into the chapter.

Focus on International Issues

These boxed inserts expose students to international issues in accounting.

Check Yourself

These short question/answer features occur at the end of each main topic and ask students to stop and think about the material just covered. The answer follows to provide immediate feedback before students go on to a new topic.



THE CURIOUS ACCOUNTANT

In the first course of accounting, you learned how retailers, such as Wal-Mart, account for the cost of equipment that lasts more than one year. Recall that the equipment was recorded as an asset when purchased, and then it was depreciated over its expected useful life. The depreciation charge reduced the company's assets and increased its expenses. This approach was justified under the matching principle, which seeks to recognize costs as expenses in the same period that the cost (resource) is used to generate revenue.

ANSWER TO *curious* ACCOUNTANT

As you have seen, accounting for depreciation related to manufacturing assets is different from accounting for depreciation for nonmanufacturing assets. Depreciation on the checkout equipment at Wal-Mart is recorded as depreciation expense. Depreciation on manufacturing equipment at Black & Decker is considered a product cost. It is included first as a part

of the cost of inventory and eventually as a part of the expense, cost of goods sold. Recording depreciation on manufacturing equipment as an inventory cost is simply another example of the matching principle, because the cost does not become an expense until revenue from the product sale is recognized.

crime loses the opportunity for white-collar employment. Second chances are rarely granted. It is vital to learn to recognize and avoid the common features of ethical misconduct.

Upstream and Downstream Costs

Most companies incur product-related costs before and after, as well as during, the manufacturing process. For example, costs incurred prior to manufacturing include advertising, sales com-

Activity-Based Management

Simple changes in perspective can have dramatic results. For example, imagine how realizing the world is round instead of flat changed the nature of travel. A recent change in perspective developing in management accounting is the realization that an organization cannot manage costs. Instead, it manages the activities that cause costs to be incurred. Activities represent the measures an organization takes to accomplish its goals.

focus on INTERNATIONAL ISSUES

Where in the World Do New Managerial Accounting Practices Come From?

Many of the emerging practices in managerial accounting have their foundations in Asian companies. These companies established employee relationships that achieve continuous improvement by encouraging employees to participate in the design as well as the execution of their work. Employee empowerment through the practice known as *kaizen management* recognizes gradual, continuous improvement as the ultimate key to cost reduction and quality control. Employees are encouraged to identify and eliminate nonvalue-added activities, idle time, and waste. The response is overwhelming when employee suggestions are taken seriously. For example, the Toyota Motor Corporation reported the receipt of approximately two million employee suggestions in one year alone.

Source: Takao Tanaka, "Kaizen Budgeting: Toyota's Cost Control System Under TQC," *Journal of Cost Management*, Winter 1996, p. 62.

concerts are shown in Exhibit 2-21.

Exhibit 2-21 Cost Behavior Relative to Number of Concerts

Number of concerts (a)	1	2	3	4	5
Cost per concert (b)	\$48,000	\$48,000	\$48,000	\$48,000	\$48,000
Total cost (a × b)	\$48,000	\$96,000	\$144,000	\$192,000	\$240,000

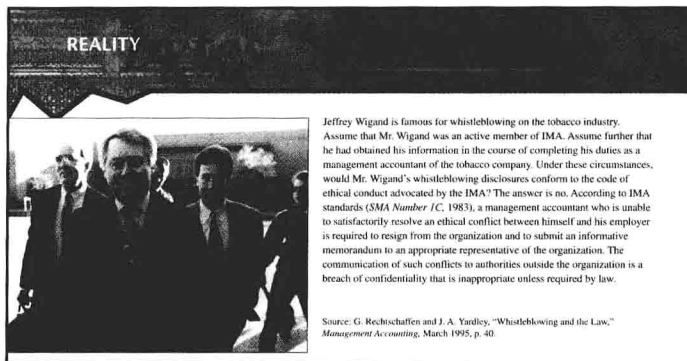
In this context, the total cost of hiring the band increases proportionately with the number of concerts while cost per concert remains constant. The band cost is therefore variable. The same cost can behave as either a fixed cost or a variable cost, depending on the activity base. When identifying a cost as fixed or variable, first ask, fixed or variable relative to what activity base? The cost of the band is fixed relative to the number of tickets sold for a specific concert; it is variable relative to the number of concerts produced.

Is the compensation cost for managers of Pizza Hut Restaurants a fixed cost or a variable cost?

Answer The answer depends on the context. For example, since a store manager's salary remains unchanged regardless of how many customers enter a particular restaurant, it can be classified as a fixed cost relative to the number of customers at a particular restaurant. However, the more restaurants that Pizza Hut operates, the higher the total managers' compensation cost will be. Accordingly, managers' salary cost would be classified as a variable cost relative to the number of restaurants opened.

Check
Yourself
2-4

MOTIVATE STUDENTS?



Activity-Based Costing

A company that allocates indirect costs using **activity-based costing (ABC)** follows a two-stage process. In the first stage, costs are assigned to pools based on the activities that cause the costs to be incurred. In the second stage, the costs in the activity cost pools are allocated to products using a variety of cost drivers. The first step in developing an ABC system is to identify essential activities and the costs of performing those activities.

A business undertakes **activities** to accomplish its mission. Typical activities include acquiring raw materials, transforming raw materials into finished products, and delivering products to customers. These broadly defined activities can be divided into subcategories. For example, the activity of acquiring raw materials involves separate subcategory activities such as identifying suppliers, obtaining price quotations, evaluating materials specifications, completing purchase orders, and receiving purchased materials. Each of these subcategories can be subdivided into yet more detailed activities. For instance, identifying suppliers may include such activities as reviewing advertisements, searching Internet sites, and obtaining recommendations from business associates. Further subdivisions are possible. Companies perform thousands of activities.



a look back

To plan and control business operations effectively, managers need to understand how different costs behave in relation to changes in the volume of activity. Total **fixed cost** remains constant when activity changes. Fixed cost per unit decreases with increases in activity and increases with decreases in activity. In contrast, total **variable cost** increases proportionately with increases in activity and decreases proportionately with decreases in activity. Variable cost per unit remains constant regardless of activity levels. The definitions of fixed and variable costs have meaning only within the context of a specified range of activity (the relevant range) for a defined period of time. In addition, cost behavior depends on the relevant volume measure (a store manager's salary is fixed relative to the number of customers visiting a particular store but is variable relative to the number of stores operated). A mixed cost has both fixed and variable cost components.

Fixed costs allow companies to take advantage of **operating leverage**. With operating leverage, each additional sale decreases the cost per unit. This principle allows a small percentage change in volume of revenue to cause a significantly larger percentage change in profit.

a look forward

Operating income is the amount available to pay fixed costs and provide a profit. Although not permitted by GAAP for external reporting, many companies use the contribution margin format for internal reporting purposes.

Cost per unit is an average cost that is easier to compute than the actual cost of each unit and is more relevant to decision making than actual cost. Accountants must use judgment when choosing the time span from which to draw data for computing the average cost per unit. Distortions can result from using either too long or too short a time span.

Fixed and variable costs can be estimated using such tools as the **high-low method** and **scattergraphs**. Both are easy to use and can be reasonably accurate.

The next chapter will show you how changes in cost, volume, and pricing affect profitability. You will learn to determine the number of units of product that must be produced and sold in order to break even (the number of units that will produce an amount of revenue that is exactly equal to total cost). You will learn to establish the price of a product using a cost-plus pricing approach and to establish the cost of a product using a target-pricing approach. Finally, the chapter will show you how to use a break-even chart to examine potential profitability over a

Reality Bytes

Real-world applications related to specific chapter topics are introduced through *Reality Bytes*. Reality Bytes may offer survey results, graphics, quotations from business leaders, and other supplemental topics that enhance opportunities for students to connect the text material to actual accounting practice.

Topic Tackler Plus

A logo indicates a topic explained on the Topic Tackler Plus DVD. The DVD includes two hard-to-learn topics for each chapter explained with video, PowerPoint, practice quizzes, self tests, and a demonstration, self-study problem walkthrough.

A Look Back/A Look Forward

Students need a roadmap to make sense of where the chapter topics fit into the "whole" picture. A Look Back reviews the chapter material and a Look Forward introduces students to what is to come.

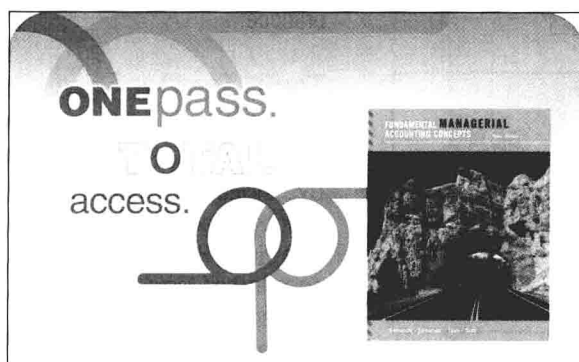
"I thought the pedagogy was excellent in this book. Additionally, I was pleased with the "qualitative considerations" discussions in many of the chapters."

**David McIntyre,
Clemson University**

HOW CAN TECHNOLOGY

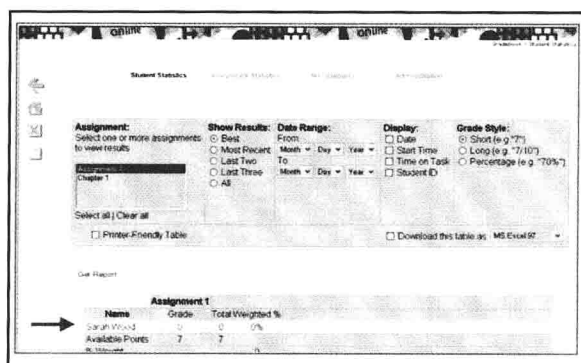
Our technology resources help student and instructors focus on learning success. By using the Internet and multimedia students get book-specific help at their convenience. Compare our technology to those of any other book and we're confident you'll agree that **Fundamental Managerial Accounting Concepts** has the best in the market.

Teaching aids make in-class presentations easy and stimulating. These aids give you more power than ever to teach your class the way you want.



OnePass

McGraw-Hill/Irwin offers a complete range of technology to support and complement **Fundamental Managerial Accounting Concepts**. One Pass integrates all of the text's multimedia resources. With just one access code students can obtain state of the art study aids, including Homework Manager, NetTutor and an interactive online version of the text.

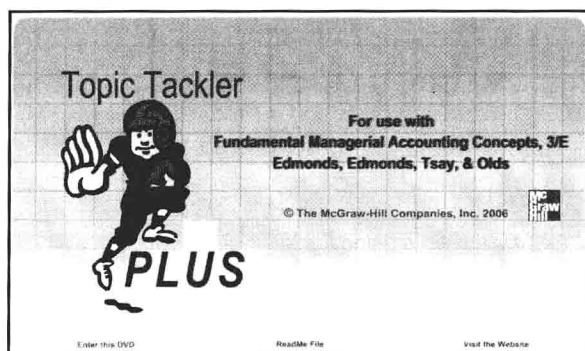


McGraw-Hill's Homework Manager is a Web-based supplement that duplicates problem structures directly from the end-of-chapter material in your textbook. It includes static problems and algorithms to provide a limitless supply of online self-graded practice for students, or assignments and tests with unique versions of every problem. Say goodbye to cheating in your classroom; say hello to the power and flexibility you've been waiting for in creating assignments. All Exercises and Problems in Series A are available with Homework Manager.

McGraw-Hill's Homework Manager is also a useful grading tool. All assignments can be delivered over the Web and are graded automatically with the results stored in your private grade book. Detailed results let you see at a glance how each student does on an assignment or an individual problem—you can even see how many tries it took them to solve it.

Students receive full access to McGraw-Hill's Homework Manager when they purchase OnePass, or they can order directly from your Homework Manager course web page.

HELP STUDENT SUCCESS?



Topic Tackler Plus DVD

This software is a complete tutorial focusing on areas in the course that give students the most trouble. It provides help on two key topics for each chapter by use of

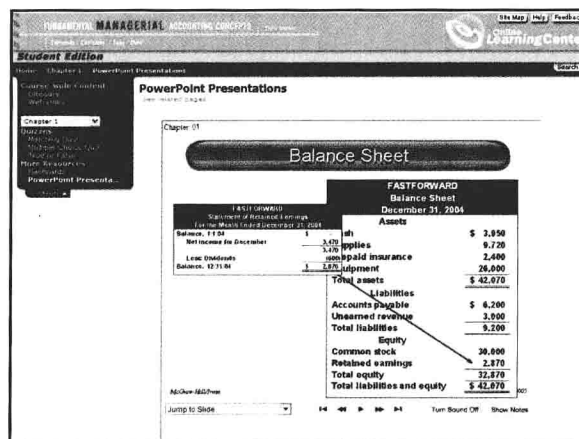
- Video clips
- PowerPoint slide shows
- Interactive exercises
- Self-grading quizzes

A logo in the text marks the topic given further coverage in Topic Tackler Plus.

The DVD also includes for each chapter the Self-Study Review Problem presented in an audio-narrated PowerPoint slide presentation, as well as a short video

"I found the CD to be an excellent addition to the text. It contains some of the best material I have seen for this level of text."

Dan R. Ward, University of Louisiana, Lafayette



Online Learning Center (OLC)

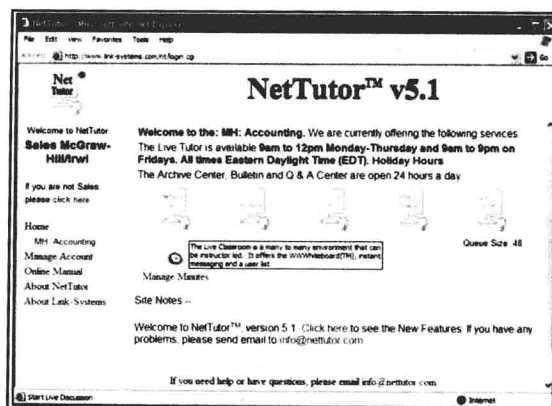
www.mhhe.com/edmonds3e

More and more students are studying online. That's why we offer an Online Learning Center (OLC) that follows **Fundamental Managerial Accounting Concepts** chapter by chapter. The OLC includes the following:

- Excel Spreadsheets
- Spreadsheet Tips
- Text Updates
- Glossary
- Key Term Flashcards
- Chapter Learning Objectives
- Interactive Quizzes
- E Lectures (audio-narrated PowerPoints)
- Additional Check Figures
- Mobile Resources
- Topic Tackler Plus

For instructors, the book's secured OLC contains essential course materials. You can pull all of this material into your PageOut course syllabus or use it as part of another online course management system. It doesn't require any building or maintenance on your part. It's ready to go the moment you type in the URL.

- Instructor's Manual
- Solutions Manual
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- Sample Syllabi
- All Text Exhibits
- Text Updates



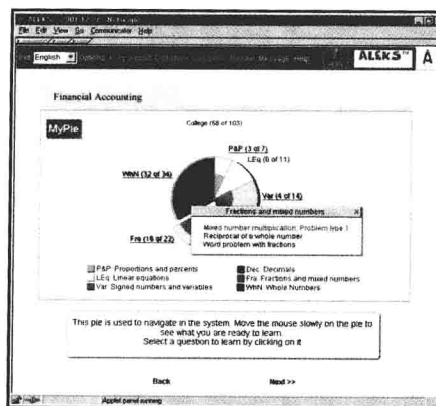
NetTutor

Many students work or have other commitments outside of class, making it difficult for them to get help with their questions during regular school hours. NetTutor is a breakthrough program that connects your students with qualified tutors online so they can get help at their convenience.

Students can communicate with tutors in a variety of ways:

- The Live Tutor Center, where students can view tutor-created spreadsheets, T-accounts, and instant responses to their questions
- The Q&A Center, which allows students to submit questions anytime and receive answers within 24 hours.
- The Archive Center that lets students browse for answers to previously asked questions. They can also search for questions pertinent to a particular topic.

With OnePass, students receive unlimited access to NetTutor for the length of the course.

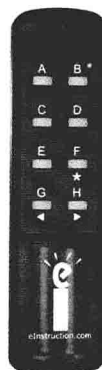


ALEKS

ALEKS for the Accounting Cycle

ALEKS (Assessment and Learning in Knowledge Spaces) provides precise assessment and individualized instruction in the fundamental skills your students need to succeed in accounting. ALEKS motivates your students because it can tell what a student knows, doesn't know, and is most ready to learn next. ALEKS uses an artificial intelligence engine to exactly identify a student's knowledge of accounting.

To learn more about adding ALEKS to your accounting course, visit www.business.aleks.com.



eInstruction

CPS Classroom Performance System

This is a revolutionary system that brings ultimate interactivity to the classroom. CPS is a wireless response system that gives you immediate feedback from every student in the class. CPS units include easy-to-use software for creating and delivering questions and assessments to your class. With CPS you can ask subjective and objective questions. Then every student simply responds with their individual, wireless response pad, providing instant results. CPS is the perfect tool for engaging students while gathering important assessment data.

Instructor's Resource CD

This CD includes electronic versions of the Instructor's Manual, Solutions Manual, Test Bank, and Computerized Test Bank, as well as PowerPoint slides, video clips, and all exhibits in the text in a PowerPoint format.

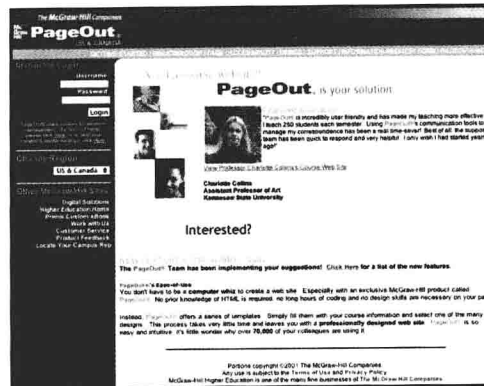


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Knowledge Gateway

Knowledge Gateway is an all-purpose service and resource center for instructors teaching online. While training programs from WebCT and Blackboard will help teach you their software, only McGraw-Hill/Irwin has services to help you actually manage and teach your online course, as well as run and maintain the software. To see how these platforms can assist your online course, visit www.mhhe.com/solutions.

HOW ARE CHAPTER

Regardless of the instructional approach, there is no shortcut to learning accounting. Students must practice to master basic accounting concepts. The text includes a prodigious supply of practice materials and exercises and problems.

Self-Study Review Problem

These representative example problems include a detailed, worked-out solution and provide another level of support for students before they work problems on their own. These review problems are included on the Topic Tackler Plus DVD in an animated audio presentation.

Exercise Series A & B and Problem Series A & B

There are two sets of problems and exercises, Series A and B. Instructors can assign one set for homework and another set for class work.

• Check figures

The figures provide a quick reference for students to check on their progress in solving the problem. These are included for all problems in Series A.

• Excel

Many exercises and problems can be solved using the Excel™ spreadsheet templates contained on the text's Online Learning Center. A logo appears in the margins next to these exercises and problems for easy identification.

"I'm glad to see that so many of them involve service, rather than manufacturing businesses."

Nancy Ruhe,
West Virginia University

SELF-STUDY REVIEW PROBLEM

Mensa Mountaineering Company (MMC) provides guided mountain climbing expeditions in the Rocky Mountains. Its only major expense is guide salaries; it pays each guide \$4,800 per climbing expedition. MMC charges its customers \$1,500 per expedition and expects to take five climbers on each expedition.

Part 1

Base your answers on the preceding information.

Required

- Determine the total cost of guide salaries and the cost of guide salaries per climber assuming that four, five, or six climbers are included in a trip. Relative to the number of climbers in a single expedition, is the cost of guides a fixed or a variable cost?
- Relative to the number of expeditions, is the cost of guides a fixed or a variable cost?
- Determine the profit of an expedition assuming that five climbers are included in the trip.
- Determine the profit assuming a 20 percent increase (six climbers total) in expedition revenue. What is the percentage change in profitability?
- Determine the profit assuming a 20 percent decrease (four climbers total) in expedition revenue. What is the percentage change in profitability?
- Explain why a 20 percent shift in revenue produces more than a 20 percent shift in profitability. What term describes this phenomenon?

Part 2

Assume that the guides offer to make the climbs for a percentage of expedition fees. Specifically, MMC

Bently Trust Corporation has two service departments, actuary and economic analysis. Bently also has three operating departments, annuity, fund management, and employee benefit services. The annual costs of operating the service departments are \$720,000 for actuary and \$960,000 for economic analysis. Bently uses the direct method to allocate service center costs to operating departments. Other relevant data follow.

	Operating Costs*	Revenue
Annuity	\$1,000,000	\$1,680,000
Fund management	1,800,000	2,520,000
Employee benefit services	1,200,000	2,200,000

*The operating costs are measured before allocating service center costs.

Required

- Use operating costs as the cost driver for allocating service center costs to operating departments.
- Use revenue as the cost driver for allocating service center costs to operating departments.

PROBLEMS—SERIES A

L.O. 1, 2, 3, 4, 5



All Problems in Series A are available with McGraw-Hill's Homework Manager

PROBLEM 5-18A Cost Accumulation and Allocation

Belcher Manufacturing Company makes two different products, M and N. The company's two departments are named after the products; for example, Product M is made in Department M. Belcher's accountant has identified the following annual costs associated with these two products.

CHECK FIGURE

- a. (2) \$590,000

Financial data	
Salary of vice president of production division	\$ 90,000
Salary of supervisor Department M	38,000
Salary of supervisor Department N	28,000
Direct materials cost Department M	150,000
Direct materials cost Department N	210,000
Direct labor cost Department M	120,000
Direct labor cost Department N	340,000
Direct utilities cost Department M	60,000
Direct utilities cost Department N	12,000
General factorywide utilities	18,000
Production supplies	18,000
Fringe benefits	69,000
Depreciation	360,000
Nonfinancial data	
Machine hours Department M	5,000
Machine hours Department N	1,000

Required

- Identify the costs that are (1) direct costs of Department M, (2) direct costs of Department N, and (3) indirect costs.
- Select the appropriate cost drivers for the indirect costs and allocate these costs to Departments M and N.
- Determine the total estimated cost of the products made in Departments M and N. Assume that Belcher produced 2,000 units of Product M and 4,000 units of Product N during the year. If Belcher prices its products at cost plus 30 percent of cost, what price per unit must it charge for Product M and for Product N?

L.O. 1, 3, 4 **PROBLEM 5-19A Selecting an Appropriate Cost Driver (What Is the Base?)**