KINGSTON COMPANY

Introduction

The following is the opening description of Kingston Company, an organization that will serve as the basis for numerous problems throughout the remaining chapters of this textbook. Problem assignments in this section follow the Kingston case in the manner auditors proceed with an audit. Additional case descriptions and problem requirements appear at the end of subsequent chapters. However, a student does not need to work all the Kingston assignments to get the sense of an audit.

Kingston Company

The Kingston Company is a regional wholesale distributor of lumber and hardware. Its products are shipped to large and small retail outlets in southern Ontario. The company stocks a wide range of products and has a large customer base of retail store and lumber company customers. Kingston operates from a large office and warehouse facility in Kingston, Ontario.

Kingston Company, incorporated in the province of Ontario, is a public corporation. Its shares are traded in the over-the-counter market. No one presently owns more than 4 percent of the outstanding common shares. The company is subject to the reporting requirements of the Ontario Securities Commission (OSC).

Organization and Personnel

Kingston Company is a medium-sized corporation. It has over 100 employees organized in five departments headed by vice presidents. The organization chart is shown in Exhibit 4–10.

Marketing

The marketing department handles advertising and direct contact with customers. The marketing department vice president supervises the sales staff, the advertising staff and the customer relations staff.

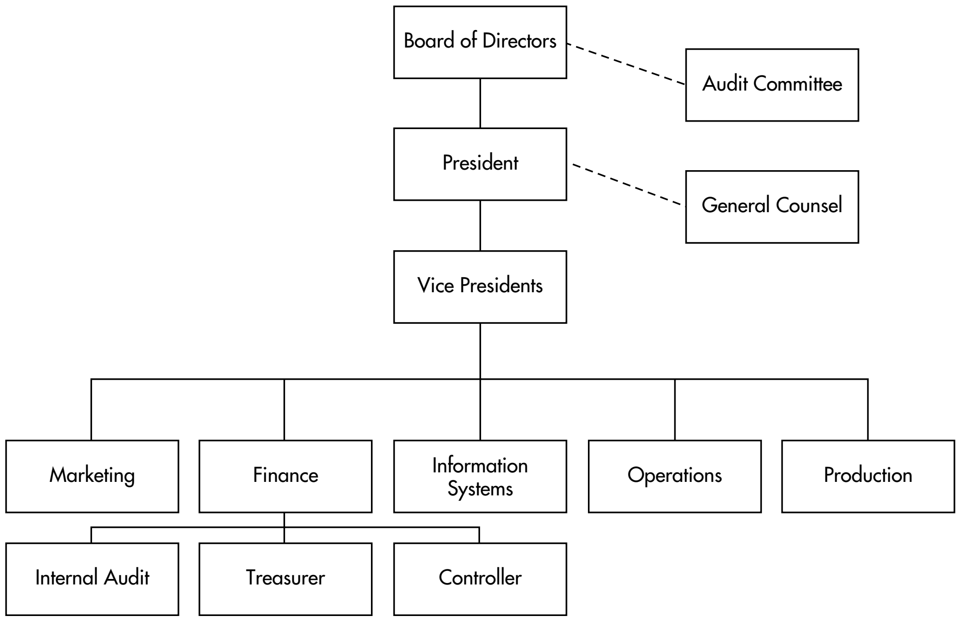
Finance

The finance department has three subordinate offices—the treasurer, the controller and the internal audit function. The treasurer supervises the cashiers, the credit manager and the cash management professionals. The director of internal audit has several staff internal auditors. The controller's office has the following departments and personnel: billing department, accounts receivable/cash receipts department, accounts payable/cash disbursements department, inventory records department, payroll department, general ledger department and financial statement department.

Information Systems

An information systems department is being created. At present, the staff consists of a director of MIS (management information systems), a systems development project manager and two programmer/analysts, an operations manager (who also serves as the librarian and control clerk), and two machine operators. The computer has arrived and is being tested.

EXHIBIT 4–10 KINGSTON COMPANY ORGANIZATION CHART



Production

The production department may be misnamed (because it sounds like a manufacturing operation), but the name came from the founder of the company. The department contains production planning specialists and some production control professionals, who assist the marketing department in technical matters and assist customers with product specifications. Production supervisors supervise the hourly workers, who move products from receiving, inventory and shipping to serve customer demand. The department also supervises the timekeepers, who maintain the workers' time clocks and collect payroll time cards.

Operations

The operations department contains the critical functions of purchasing, receiving and shipping. Inventory storekeeping responsibility is also in this department, with some inventory managers. For reasons lost to history, the department also has the mailroom and the personnel department.

Officers and Directors

The president, Larry Lancaster, is both chairman of the board of directors and chief executive officer (CEO). The vice presidents are members of the board, along with three outside (independent) directors who never worked for the Kingston organization. These three outside board members also constitute the audit committee of the board.

Kingston Case Assignments

4.21 Kingston Company Engagement Letter. Write an appropriate engagement letter addressed to Mr. Larry Lancaster, chairman of the Kingston Company board of directors. (You can see an example engagement in Exhibit 4–1.) Take under consideration the following information and the report of the meeting, which took place early in July 2002.

****

The audit firm of Anderson, Olds & Watershed has been the independent auditor for several years. Several months before the December 31 fiscal year-end, the conversation reported below took place in a meeting attended by Ann Anderson, PA; Dalton Wardlaw, PA (partner in charge of the audit for the past two years); Julie Grace (Kingston's vice president of finance); Mila Davila (Kingston's treasurer); Sandra Carboy (Kingston's controller); and Jonathan Roberts (Kingston's director of internal audit). The three members of the audit committee of the board also were present, but they did not enter into the conversation.

Ms. Grace (VP finance): Well, here we are again, getting ready for another independent audit. Ann, will Dalton be in charge again?

Ms. Anderson (AOW managing partner): Yes, and he will be assisted by seven of our best staff, including a tax specialist and a computer systems management consultant. We need to keep up-to-date on your computer work.

Ms. Davila (treasurer): In the past, we have never had any unpleasant discoveries of embezzlement or theft, but we always want to be vigilant. Will you plan enough in-depth auditing to give us assurances about errors and irregularities in the accounts?

Mr. Wardlaw (partner of the audit): We will follow audit standards and base our audit work on samples of transactions. We plan the work to look for major errors and irregularities in the accounts, but cleverly hidden schemes might not be discovered. We will give you the usual separate management letter on our internal control evaluation and other related findings.

Mr. Roberts (internal auditor): Dalton, I agree, it's hard to uncover clever schemes. None of the projects I have undertaken this year shows anything amiss, other than normal human error types of mistakes.

Ms. Davilia (treasurer): This year, we want to add some work to the audit. I am short on staff time and need to have you prepare the provincial franchise tax return as well as the federal tax returns. I am also preparing, with Ms. Carboy, some current value information on our real estate subsidiary's assets. Will you review it and give us a report on how well we're doing?

Mr. Wardlaw (partner on the audit): Our tax staffperson can do the provincial and federal returns, and I will have them reviewed by Mr. Olds, our tax partner. We will review the current value information. Do you want a special audit report on it? Anything else?

Ms. Carboy (controller): Yes, and I have something else in mind. This year we also want you to do a review of our quarterly financial statistics included in the financial statement footnotes. We want to state in the footnote that the auditors have reviewed the information.

Ms. Anderson (AOW managing partner): All right, we will do a review of the interim financial information. I assume you also want us to review the OSC filing material?

Ms. Grace (VP finance): Yes. Will you need any staff help from us?

Mr. Roberts (internal auditor): Last year, Kingston saved a lot of time and audit fees when my staff prepared a stack of schedules and analyses you needed.

Mr. Wardlaw (partner on the audit): Yes, Jonathan, I will give you a package of blank schedules for various accounts. I will appreciate your having them ready when we start work in September.

Ms. Carboy (controller): Speaking of being ready, we will be able to give you a trial balance and financial statement the day after December 31.

Ms. Grace (VP finance): How much is this going to cost us?

Ms. Anderson (AOW managing partner): We cannot give a fixed fee deal like we did when we first audited Kingston, but my estimate, considering the additional work this year, is $75,000. Dalton will let you know immediately if problems arise to cause the work to be more extensive.

Ms. Grace (VP finance): Thank you. This has been a productive meeting of the minds. We look forward to your getting started next month.

4.22 Understanding Kingston Company's Business and Audit Staffing. Additional considerations include these:

a. Based on the description of Kingston Company and the meeting reported in 4.21, do you see any need for special business knowledge in regard to the basic type of business and products Kingston manages? Specify, if any, and explain.

b. Based on the description of Kingston Company and the meeting reported in 4.21, do you see any need for special audit or accounting expertise for any of the work the auditors agreed to perform? Specify, if any, and explain.

4.23 Obtain Kingston Company's Financial Statements. Textbook cases can only go so far in pretending to follow the time sequence of an audit engagement. According to the conversation in 4.21, the date is July 2002, but the financial statements for the whole year 2002 have already been presented in Exhibit 4–2 in the chapter! To give you a chance to "obtain" the financial statements by writing some, suppose you have the comparative trial balance shown in Exhibit 4.23–1. (The current-year column is the same 2002 trial balance that is in Exhibit 4–2.)

EXHIBIT 4.23–1 KINGSTON COMPANY—COMPARATIVE TRIAL BALANCE

Account	Prior-Year Debits (Credits)	Current-Year Debits (Credits)
North Country Bank	$(1,600,000)	$(2,484,000)
Trade accounts receivable	(500,000)	(400,000)
Allowance for doubtful accounts	(40,000)	(30,000)
Inventory	1,500,000	1,940,000
Other current assets	0	0
Capital assets	(3,000,000)	(4,000,000)
Accumulated amortization	(1,500,000)	(1,800,000)
Other assets	0	0
Trade accounts payable	(450,000)	(600,000)
Accrued expenses	(50,000)	(10,000)
Accrued interest	(60,000)	(40,000)
Other current liabilities	0	0
Bank loans payable	0	(750,000)
Notes payable	(600,000)	(400,000)
Deferred credits	0	0
Share capital and contributed surplus	(2,000,000)	(2,000,000)
Retained earnings—beginning	(720,000)	(900,000)
Dividends declared	0	0
Sales	(9,200,000)	(8,500,000)
Sales returns	(200,000)	(400,000)
Cost of goods sold	(6,296,000)	(5,265,000)
General expenses	(2,000,000)	(1,955,000)
Bad debt expense	(44,000)	(50,000)
Amortization expense	(300,000)	(300,000)
Interest expense	(60,000)	(40,000)
Income tax expense	(120,000)	(196,000)
Other income and expense	0	0
Total trial balance		

Cash	$ 746,500
Accounts receivable	350,000
Allowance for doubtful accounts	(31,500)
Inventory	1,550,000
Capital assets	3,000,000
Accumulated amortization	(1,200,000)
Accounts payable	(475,000)
Accrued expenses	(65,000)
Accrued interest	(80,000)
Bank loans	(275,000)
Long-term notes	(800,000)
Share capital	(2,000,000)
Retained earnings	(424,000)
Dividends declared and paid	10,000

Required:

a. Determine whether the prior-year and current-year trial balances balance. (Add them.)

b. Write the prior-year financial statements in the format shown in Exhibit 4–2. To prepare the statement of cash flows, you need to know some balances for the year ended before the prior year. They are in Exhibit 4.23–1 (credit balances are in parentheses):

EXHIBIT 4–1

ENGAGEMENT LETTER: KINGSTON COMPANY

Anderson, Olds & Watershed
Public Accountants
Toronto, Ontario
July 15, 2003

Mr. Larry Lancaster,
Chairman
Kingston Company
Kingston, Ontario

Dear Mr. Lancaster:

This will confirm our understanding of the arrangements for auditing the Kingston Company financial statements for 2003.

Our work will consist of an audit of the balance sheet at December 31, 2003, and the related statements of income, retained earnings and changes in financial position for the year ending that date. Our audit will be made in accordance with generally accepted auditing standards and will include such tests of the accounting records and such other auditing procedures as we consider necessary.

Our audit will be conducted in accordance with generally accepted auditing standards. The audit will include examining, on a test basis, evidence supporting the amounts and disclosure in the financial statements. The audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

We will plan the audit to detect material errors and irregularities that may affect your financial statements. However, our work is subject to the unavoidable risk that errors, irregularities and illegal acts, including fraud and theft, if they exist, will not be detected. We expect to obtain reasonable but not absolute assurance that material misstatements do not exist in the financial statements. Our findings regarding misstatements that indicate significant weaknesses in internal control, including the design or operation of the entity's financial reporting process, will be reported to the audit committee of your board of directors in a separate letter at the close of the audit.

At your request, we will perform the following other services: (1) timely preparation of all required corporate tax returns and (2) a review and report on the company's methods for assessing your environmental performance information system in accordance with the CICA Study "Reporting on Environmental Performance."

We will provide your staff with a package of blank schedules needed by our staff during the audit. The delivery dates have been discussed and mutually agreed upon. We understand that your staff will prepare all the schedules in the package, all the financial statements and notes thereto and the Ontario Securities Commission Annual Information Form for our review. The scope of our services does not include preparation of any of these financial statements.

Mr. Dalton Wardlaw will be the partner in charge of all work performed for you. He will inform you immediately if we encounter any circumstances that could significantly affect our fee estimate of $60,000 discussed with you on July 1, 2003. He is aware of the due date for the audit report, February 15, 2004. You should feel free to call on him at any time.

If the specifications above are in accordance with your understanding of the terms of our engagement, please sign below and return the duplicate copy to us. We look forward again to serving you as public accountants.

Sincerely yours,

Ann Anderson, PA

Accepted by ____________________ Date ____________________

EXHIBIT 4–2A KINGSTON COMPANY TRIAL BALANCE, DECEMBER 31, 2002

Revenue and collection cycle	Acquisition and expenditure cycle	Production and conversion cycle	Financing and investment cycle	Account	Debit	Credit
X	X	X	X	Cash	484,000	
X				Accounts receivable	400,000	
X				Allowance for doubtful accounts		30,000
X				Sales		8,500,000
X				Sales returns	400,000	
X				Bad debt expense	50,000	
	X	X		Inventory	1,940,000	
	X			Capital assets	4,000,000	
	X			Accum amortization		1,800,000
	X			Accounts payable		600,000
	X			Accrued expenses		10,000
	X			General expense	1,955,000	
		X		Cost of goods sold	5,265,000	
		X		Amortization expense	300,000	
			X	Bank loans		750,000
			X	Long term notes		400,000
			X	Accured interest		40,000
			X	Share capital		2,000,000
			X	Retained earnings		900,000
			X	Dividends declared	0	
			X	Interest expense	40,000	
			X	Income tax expense	196,000	
					15,030,000	15,030,000

EXHIBIT 4–2B KINGSTON COMPANY UNAUDITED FINANCIAL STATEMENTS

BALANCE SHEET			
Cash	$ 484,000	Accounts payable	$ 600,000
Accounts receivable	370,000	Accrued expenses	10,000
Inventory	1,940,000	Accrued interest	40,000
Current Assets	$2,794,000	Current Liabilities	$ 630,000
Capital assets (net)	$4,000,000	Long-term debt	$1,150,000
Accum amortization	(1,800,000)		
		Share capital	$2,000,000
Captial assets (net)	$2,000,000	Retained earnings	1,194,000
Total Assets	$4,994,000	Total Liabilities and Shareholder Equity	$4,994,000

STATEMENT OF INCOME	
Sales (net)	$8,100,000
Cost of goods sold	5,265,000
Gross Profit	$2,835,000
General expenses	$2,005,000
Amortization expense	300,000
Interest expense	40,000
Operating Income Before Taxes	$ 490,000
Income Tax Expense	196,000
Net Income	$ 294,000

CASH FLOWS	
Operations:	
Net Income	$ 294,000
Amortization	300,000
Decrease in Accounts Receivable	90,000
Increase in Inventory	(440,000)
Increase in Accounts Payable	150,000
Decrease in Accrued Expenses	(40,000)
Decrease in Accrued Interest	(20,000)
Cash Flow from Operations	$ 334,000
Investing Activities:	
Purchase Captial Assets	$ (1,000,000)
Financing Activities:	
Bank Loan	$ 750,000
Repay Notes Payable	(200,000)
Financing Activities	$550,000
Increase (Decrease) in Cash	$ (114,000)
Beginning Balance	600,000
Ending Balance	$ 484,000

NOTES TO FINANCIAL STATEMENTS
1. Accounting Policies
2. Inventories
3. Plant and Equipment
4. Long-term Debt
5. Stock Options
6. Income Taxes
7. Contingencies

Etc.

EXHIBIT 4–9 ILLUSTRATIVE WORKING PAPER: KINGSTON COMPANY

Index number

Client name

Initials of auditors and dates of work

C-2

KINGSTON COMPANY
BANK RECONCILIATION–NORTH COUNTRY BANK
General Account
12/31/02
(Prepared by client)

Prepared *J.D. 1/10/03*
Reviewed *JRA 1/10/03*

Balance per bank statement				506,100 c
Add:				
Deposit in transit as of 12/31/02				51,240 n
Deduct outstanding checks:				557,340
Date	No.	Payee		
12/10/01	842	Ace Supply Company	500 ∝	
11/31/02	1280	Ace Supply Company	1,800 ✓	
12/15/02	1372	Northwest Lumber Co.	30,760 ✓	
12/28/02	1412	Gibson & Johnson	7,270 ✗	
12/30/02	1417	First National payroll	20,000 ✓	
12/30/02	1418	Ace Supply Company	2,820 ✓	
12/30/02	1419	Windy City Utilities	2,030 ✓	
12/30/02	1420	Howard Hardware Supply	8,160 ✓	
Balance per book				73,340
				484,000 f
				T/B-1

"Tick mark" symbols

Tie-in to tick mark symbols

Cross-index to trial balance

Note: Obtained cutoff bank statement 1/9/03 C-23
f Footed
c Confirmed by bank standard bank confirmation C-22
n Vouched to cutoff bank statement, deposit recorded by bank on 1/3/03. Vouched to duplicate deposit slip validaged 1/30/03
✓ Vouched to paid check cleared with cutoff bank statement.
✗ Vouched to statement from attorneys. Amount agrees
∝ Amount in dispute per controller. Confirmation from supplier claims liability of $5,000. See K-4 recommended adjustment.

Cross-index to other working papers

Explanations of audit work performed

The Kingston Company's business and organization was described at the end of Chapter 4. The case study continues here with assignments on the application of preliminary analytical procedures and the preliminary materiality determination. To recapitulate the information you have about the company:

- Business and organization description at the end of Chapter 4.
- Comparative trial balance of prior year (2001) audited financial balances and current year (2002) unaudited balances in Exhibit 4.23–1.
- Current year (2002) financial statements in Exhibit 4–2.
- Prior-year financial statements prepared in response to case assignment 4.23.

5.18 Kingston Company Minutes of Meetings of the Board of Directors: Attention-Directing Review of Corporate Minutes. The board of directors met twice during the period under audit, January 1 through December 31 of the current year, and once in January the next year before the audit was completed. Condensed minutes of the meetings are given below.

Meeting Held February 1, 2002

Larry Lancaster, chairman of the board, presided over the first meeting of the year, beginning at 3 p.m. All members were present:

Larry Lancaster	Archie Goodwin
Josephine Mandeville*	Fritz Brenner*
Ivan Gorr	Theodore Horstmann*
Harry Baker	Julie Grace

*Members of the audit committee.

The minutes of the December 15 meeting were reviewed and approved.

Reporting on the annual meeting of shareholders, Mr. Lancaster welcomed the newly elected board members: Josephine C. Mandeville, president of Connelly Foundation and director of Crown Cork & Seal Company; Ivan W. Gorr, CEO and director of Cooper Tire & Rubber; and Harry R. Baker, president of Marathon Electric Manufacturing Corporation and director of Wausau Paper Mills Company.

Ms. Grace presented the forecast for the year, attached herein as Exhibit 5.19–1. Sales are expected to increase 10 percent to $9,900,000, with costs of goods sold and general expenses bearing about the same relationships as experienced last year.

Mr. Brenner moved a declaration of dividends for the year ended the previous December 31. The motion died for lack of a second.

Mr. Lancaster moved and Ms. Grace seconded the approval of the officers' bonuses for the year just ended December 31. Approved by a 5–3 vote.

President, Larry Lancaster	$20,000
VP Marketing, Fred Durkin	5,000
VP Finance, Julie Grace	5,000
VP Information Systems, Lillie Rowan	5,000
VP Operations, Saul Panzer	5,000
VP Production, King Stout	5,000

Ms. Grace moved, and Mr. Lancaster seconded, officers' salary increases of 12 percent for 2002. The board approved these salaries unanimously:

President, Larry Lancaster	$127,000
VP Marketing, Fred Durkin	99,000
VP Finance, Julie Grace	97,000
VP Information Systems, Lillie Rowan	84,000
VP Operations, Saul Panzer	76,000
VP Production, King Stout	75,000
Internal Audit Director, Jonathan Roberts	70,000
Treasurer, Mila Davila	82,000
Controller, Sandra Carboy	80,000

Meeting ended 4:30 p.m. /s/ Archie Goodwin, Secretary

Meeting Held June 15, 2002

Larry Lancaster, chairman of the board, presided over the special called meeting, beginning at 3:30 p.m. All members were present:

Larry Lancaster	Archie Goodwin
Josephine Mandeville*	Fritz Brenner*
Ivan Gorr	Theodore Horstmann*
Harry Baker	Julie Grace

*Members of the audit committee.

The minutes of the February 1 meeting were reviewed and approved.

Plans to move certain facilities from rented buildings into new office and retail space were approved. Contracts were signed to (1) acquire land for $95,000 and clear the area for $5,000; (2) authorize AllMetal Builders to build the new buildings for $285,000 on a turnkey contract; (3) purchase new equipment for $600,000, installed; and (4) overhaul old equipment moved to the new location.

Financing arrangements for a $750,000 loan to be drawn July 1, 2002, at 11 percent interest payable each June 30, were approved. The new building and equipment are to be pledged as collateral.

Ms. Grace reported that sales revenue was down because of the moving plans, and her proposal to make a personal loan to the company at zero interest was approved. Ms. Grace will loan $25,000 July 15 from funds obtained by a loan on her company-paid life insurance policy. The directors agreed to repay the loan on December 1, this year.

Meeting ended 7:30 p.m. /s/ Archie Goodwin, Secretary

Meeting Held January 22, 2003

Larry Lancaster, chairman of the board, presided over the regular meeting, beginning at 2 p.m. All members were present:

Larry Lancaster	Archie Goodwin
Josephine Mandeville*	Fritz Brenner*
Ivan Gorr	Theodore Horstmann*
Harry Baker	Julie Grace

*Members of the audit committee.

The minutes of the June 15 meeting were reviewed and approved.

The selection by the audit committee of Anderson, Olds & Watershed as auditors was ratified.

Saul Panzer and King Stout presented a proposal for building and marketing custom privies, a novelty item for outdoor conversation gatherings. Since a similar plan to build and market custom gazebos had not been successful, the board tabled the proposal for the time being.

Sandra Carboy reported that appeals of the Canada Customs and Revenue Agency tax assessment covering the past three years had reached the final stage. Outside counsel, Perley Stebbins, gave his opinion that the Agency might ultimately win, but the recovery would be small. The company still has substantial defences yet untried.

Mr. Lancaster moved, and Ms. Grace seconded, the approval of officers' bonuses for 2002. The motion was defeated by a 6–2 vote.

Ms. Mandeville moved, and Mr. Gorr seconded, a proposal to retroactively declare a cash dividend of $50,000 payable February 15 to shareholders of record the past December 31. Approved by a vote of 6–2.

Ms. Grace was authorized to deposit $100,000 in escrow pending completion of negotiations to purchase and merge the Willie's Woods lumber business in suburbia.

Meeting ended at 8 p.m. /s/ Archie Goodwin, Secretary

Required:

Study these minutes. Make notes in the form below for the audit working papers of matters relevant for the audit of the 2002 financial statements. Pretend you are reading the minutes of the first two meetings at the time the interim audit work just got started in October, and the minutes of the third meeting at the time of final audit work when the audit is nearing completion. Prepare a working paper with proper headings and these two columns:

Information Relevant to 2002	Audit Action Recommended

5.19 Kingston Company Preliminary Analytical Procedures. Perform preliminary analytical procedures analysis on the financial statements using the data in Exhibits 5.19–1 and 5.19–2.

Required:

a. Calculate common-size financial statements and dollar amount and percent changes. (Hint: refer to Exhibit 5–1 in the chapter.)

b. Calculate selected financial ratios. Assume the market value of the common shares is $3 million in both the current and prior years. (Hint: Refer to Exhibit 5–2 in the chapter.)

c. Study the forecast prepared by Kingston for the current year (Exhibit 5.19–1). Does the comparison of the forecast to the current year unaudited statements suggest any potential problem areas? This assignment gives you some practice using the number 2 general analytical procedure discussed in the chapter: "Comparison of the current-year account balances to anticipated results found in the company's budgets and forecasts."

d. Write a brief memo addressed to the current working paper file pointing out potential problem areas.

5.20 Kingston Company Preliminary Materiality Assessment. Auditors normally make a preliminary materiality assessment when the audit is planned—before the end of the company's year. Thus, auditors must use available interim financial information or make estimates of the full-year financial results. To make the materiality assessment problem less complex for now, you are to use the full-year financial information shown in the trial balance in Exhibit 4.23–1. For your convenience, these data are arranged in financial statement form in Exhibit 5.19–2.

Required:

a. Briefly describe independent auditors' concept of materiality.

b. What are some common relationships and other considerations used by auditors when assessing the dollar amount considered material?

c. Determine an amount you consider to be a minimum material misstatement, and allocate it to financial statement balances and audit areas. Write a memo addressed to the current working paper file justifying your decision. You should use some of the relationships and considerations you gave in answer to part (*b*) of this problem.

EXHIBIT 5.19–1 KINGSTON COMPANY FORECAST AND CURRENT YEAR UNAUDITED FINANCIAL STATEMENTS

	Forecast Current Year	Current Year (unaudited)
Assets		
Cash	$ 713,200	$ 484,000
Accounts receivable	550,000	400,000
Allow doubtful accounts	(44,000)	(30,000)
Inventory	1,650,000	1,940,000
Total current assets	$2,869,200	$2,794,000
Equipment	3,000,000	4,000,000
Accumulated amortization	(1,800,000)	(1,800,000)
Total assets	$4,069,200	$4,994,000
Liabilities and Equity		
Accounts payable	$ 470,000	$ 600,000
Bank loans, 11%	0	750,000
Accrued expenses	70,000	50,000
Total current liabilities	540,000	1,400,000
Long-term debt, 10%	400,000	400,000
Total liabilities	940,000	1,800,000
Share stock	2,000,000	2,000,000
Retained earnings	1,129,200	1,194,000
Total liabilities and equity	$4,069,200	$4,994,000
Revenue and Expense		
Sales (net)	$9,900,000	$8,100,000
Cost of goods sold	6,930,000	5,265,000
Gross margin	2,970,000	2,835,000
General expense	2,248,000	2,005,000
Amortization	300,000	300,000
Operating income	422,000	530,000
Interest expense	40,000	40,000
Income taxes (40%)	152,800	196,000
Net income	$ 229,200	$ 294,000

d. Assume Kingston company has 200,000 common shares outstanding. The market price is currently $15 per share, which represents a price-earnings multiple of about 10.2. If the auditors think the shares could be mispriced by $1.60 per share, based on a model of share price determined by a 10.2 price-earnings multiple, what dollar amount of misstatement (materiality) in the operating income before taxes and interest would be appropriate? Prepare a working paper showing your calculation.

EXHIBIT 5.19–2 KINGSTON COMPANY FINANCIAL STATEMENTS

	Prior Year (audited)	Current Year (unaudited)
Assets		
Cash	$ 600,000	$ 484,000
Accounts receivable	500,000	400,000
Allowance doubtful accounts	(40,000)	(30,000)
Inventory	1,500,000	1,940,000
Total current assets	2,560,000	2,794,000
Equipment	3,000,000	4,000,000
Accumulated amortization	(1,500,000)	(1,800,000)
Total assets	$4,060,000	$4,994,000
Liabilities and Equity		
Accounts payable	$ 450,000	$ 600,000
Bank loans, 11%	0	750,000
Accrued expenses	110,000	50,000
Total current liabilities	560,000	1,400,000
Long-term debt, 10%	600,000	400,000
Total liabilities	1,160,000	1,800,000
Share capital	2,000,000	2,000,000
Retained earnings	900,000	1,194,000
Total liabilities and equity	$4,060,000	$4,994,000
Revenue and Expense		
Sales (net)	$9,000,000	$8,100,000
Cost of goods sold	6,296,000	5,265,000
Gross margin	2,704,000	2,835,000
General expense	2,044,000	2,005,000
Amortization	300,000	300,000
Operating income	360,000	530,000
Interest expense	60,000	40,000
Income taxes (40%)	120,000	196,000
Net income	$ 180,000	$ 294,000

Introduction

The descriptions below continue the Kingston Company case started in Chapters 4 and 5. Your job now is to evaluate internal control to the extent it is described below. These descriptions are part of the Revenue and Collection Cycle, which is explained in more detail in Chapter 9.

Kingston Accounting and Control Systems: Revenue and Collection Cycle

As evident in the company organization chart (Exhibit 4–10), Kingston has several departments and offices concerned with management, accounting and control. The company also has an abbreviated accounting and control manual and a chart of accounts. Officers and employees have described accounting and control procedures informally under the heading of several transaction cycles. Their descriptions—transcripts of conversations—start below.

Credit Approval and Sales Processing

Customer orders are received in the mail, over the telephone and over the counter by salesclerks in the marketing department. The clerks prepare written sales orders for telephone and counter customers, signing each one and asking the counter customers to sign in person. The sales orders contain the customer name, a customer number (assigned immediately for new customers), customer address, identification of products and the quantity ordered. The sales order forms are kept in the salesclerks' working area through which many people pass during the day. The sales order documents used in the offices are not prenumbered.

The salesclerks prepare an estimate of the dollar amount of the order and write it on the form. The sales orders are then hand-carried to the credit manager in the treasurer's office. The credit manager checks the customers' accounts receivable balances and other credit file information using a computer-based enquiry system. If credit is approved, the credit manager signs the sales order.

If credit is not approved, the customer is asked to pay in advance, and the sales order is held until notification of payment is received from the cashier. The sales order is stamped "paid" and sent to the billing department. Likewise, when customers pay cash over the counter, the money is taken by the cashier, and the sales order is stamped "paid" and sent to the billing department. For bookkeeping convenience, these "cash" sales are treated the same as credit sales, with the invoice amount being charged to an account receivable set up for the customer, and the customer's payment being applied immediately to the same account.

After credit has been approved, or a payment received, the sales orders are sent to the billing department in the controller's office. The billing clerks produce a four-copy sales invoice on a prenumbered invoice form. Using a screen facsimile on a microcomputer, they insert the customer and product information from the customer order, the date and the product unit prices from an approved price list. Sales taxes, delivery charges and the invoice total are computed and put on the invoice. The sales invoice forms are kept in a locked closet in the billing department, and sheets in the numerical sequence are removed only for billing clerks' immediate loading onto the computer printer.

Copy 1 and copy 2 of the sales invoice, the customer order and the sales order are sent to the accounts receivable accounting department, which is also in the controller's office. These documents are held in invoice numerical order in a "pending shipment" file, awaiting matching with copy 4 of the invoice, which was first sent to the inventory stores department as authority for the storeskeeper to put the order together and move it to the shipping department. Copy 3 of the invoice is sent to the shipping department, where it is initially held in a “pending release” file.

Shipment and Delivery

The inventory storeskeeper supervises removal of products from shelves and bins upon receipt of an invoice copy 4, which serves as the authorization to move goods to the shipping area. Copy 4 is sent to the shipping area with the products. In the shipping area, shipping employees remove copy 3 from the “pending release” file. They check both copy 3 and copy 4 for the correct quantity of each product, then pack the order in suitable boxes. Copy 3 is sent to the inventory records department in the controller’s office, where it serves as the source of entries to reduce the perpetual inventory records. If any items shown on the invoice are not shipped, the handlers are supposed to alter the invoice copies to show the correct quantity.

When customers are on the premises, they can pick up their own orders at the shipping area, where they are asked to sign copy 4 as acknowledgement of receipt. Otherwise, a prenumbered bill of lading is filled out in two copies for shipments by contract truckers. Copy 1 of the bill of lading is attached to the shipment. Copy 2 of the bill of lading is sent with invoice copy 4 to the accounts receivable accounting department.

Accounting and Control Procedure Manual

Sales and Accounts Receivable

Daily batches of sales invoices shall be analysed by sales totals in the lumber and hardware product lines. Sales credits are coded to these two product line sales revenue accounts.

Charges to customer accounts should be dated the date of shipment. When sales invoices are recorded, the numerical sequence shall be checked by an accounts receivable clerk, and the items shipped shall be compared to the items billed for proper quantity, price and other sales order terms.

The general ledger supervisor shall compare the copy 2 daily batch total with the copy 4 individual accounts posting total sent from the accounts receivable department. Discrepancies shall be investigated to help ensure that the customer subsidiary accounts are posted for the same total amount posted to the control account.

At the end of each month, the total of the trial balance of customer account balances (prepared by the accounts receivable department) shall be reconciled to the general ledger control account by the general ledger supervisor.

Sales invoice batches shall be dated with the date of shipment, and totals of batches (including product line sales for lumber and hardware) shall be accumulated each month and recorded in the accounts receivable control and sales revenue accounts. The general ledger supervisor shall approve all monthly summary entries before they are posted to the general ledger.

The treasurer shall approve all cash refunds and allowance credits for sales returns, after initiation by customer relations personnel.

The marketing vice president shall periodically analyse sales activity by product lines in comparison to budgets and forecasts and prior years activity.

Cash Management

The monthly bank statements shall be mailed to the cash management department in the treasurer’s office. Personnel use the duplicate deposit slips retained when bank deposits were made, the cash receipts journal listing and the cash disbursements listing to reconcile the general bank accounts. The payroll bank account is also reconciled, utilizing the payroll register retained by the treasurer's office.

Cash management personnel shall compare cash receipts journal daily deposit records with the bank deposits and duplicate deposit slips when the general bank account reconciliation is performed.

At the discretion of the director of internal audit, internal auditors will occasionally make unannounced reviews of the bank account reconciliations. They may also prepare reconciliations without prior notice given to cash management personnel.

Cash Receipts and Accounts Receivable Processing

All cash receipts from customers related to sales shall be credited to accounts receivable individual and control accounts.

The accounts receivable department shall post credits to individual customer accounts, dating the entries with the date of the remittance list.

Statements of accounts receivable balances shall be mailed to customers each month by the accounts receivable accounting department. Customers' reports of disputes or differences shall be handled by customer relations personnel in the marketing department.

Cash Disbursements

All disbursements shall be made by cheque, signed by the treasurer, including reimbursements of the petty cash funds.

Cheques shall be made payable to a named payee and not to "cash." Blank cheque stock shall be kept under lock and key in the accounts payable accounting department. Under no circumstances may blank cheques be signed by the treasurer.

Voided and spoiled cheques shall be transmitted to the treasurer for inspection and later filed in numerical order with paid cheques.

Cash disbursements journal entries shall be dated with the date of the cheque. The related monthly general ledger summary entries shall carry the date of the month summarized.

Inventory Perpetual Records

Inventory additions shall be dated with the date of the receiving report. Inventory issues shall be dated with the date of shipment.

Capital Asset Records and Transactions

When acquisition costs exceed the capital budget authorization by 10 percent or more, the additional expenditure shall be approved by the treasurer and board of directors, in advance if possible.

Zero salvage values shall be used in all depreciation calculations.

Useful life and amortization method assignments for financial statement calculations shall follow these general guidelines:

Furniture and fixtures	Straight line	5–10 years
Computer equipment	Straight line	3–5 years
Automobiles, trucks	SYD	5 years
Production machinery	SYD	10–12 years
Buildings	Straight line	35 years

All repair, maintenance, capital additions and the like of $1,000 or less shall be expensed. Amounts between $1,000 and $5,000 may be capitalized at the judgment of the accounts payable accounting department personnel. Amounts over $5,000 should always be capitalized unless unusual conditions point to proper expensing.

Capital asset acquisition dates in the detail and control accounts should be the date assets are placed in use, which may be different from the liability incurrence date.

Kingston Company Chart of Accounts

100 Asset Accounts

Current Assets
101 North Country General Account
103 North Country Payroll Account
105 Trade Accounts Receivable
109 Allowance for Doubtful Accounts
111 Inventory Control—Lumber
113 Inventory Control—Hardware
115 Other Current Assets

Property, Plant, Equipment and Other Assets
121 Buildings
123 Accumulated Amortization—Buildings
125 Equipment
127 Accumulated Amortization—Equipment
129 Land
140 Other Assets

200 Liability Accounts

Current Liabilities
201 Trade Accounts Payable
203 Accrued Expenses Payable (except interest)
205 Accrued Interest Payable
207 Dividends Payable
209 Income Taxes Payable
211 Other Current Liabilities
213 Bank Loans Payable

Long-Term Liabilities and Deferred Credits
220 Notes Payable
230 Deferred Credits

300 Shareholder Equity Accounts

301 Share Capital
303 Contributed Surplus
305 Retained Earnings
307 Dividends Declared

400 Revenue Accounts

401 Sales—Lumber
403 Sales—Hardware

Kingston Company Chart of Accounts (concluded)

500	Expense Accounts
501	Cost of Goods Sold—Lumber
503	Cost of Goods Sold—Hardware
505	Wages and Salaries
507	Payroll Tax Expense
509	Amortization Expense
511	Rent Expense
513	Utilities Expense
515	Advertising Expense
517	Professional Fees
519	Insurance Expense
521	Property Taxes
523	Repairs and Maintenance
525	Other Expenses
527	Interest Expense
529	Bad Debts Expense
531	Income Tax Expense
533	Sales Returns and Allowances
535	Other Income and Expense

6.28 Kingston Company: Understanding the Control Environment. This requirement involves only one element of the understanding phase—the company organization chart.

Required:
Using the Kingston Company description of organization and personnel, expand the organization chart in Exhibit 4–10 by showing the offices, personnel and departments under each vice president.

6.29 Kingston Company: Identification of Errors and Irregularities. The major classes of transactions started in the parts of the business described above are (*a*) inventory issues (goods delivered to customers) and (*b*) sales (sales invoices prepared). When you work the requirement below, be careful to confine your responses to these transactions to the extent they are described.

Required:
Prepare a working paper for the audit of Kingston Company as of December 31, 2002, showing (1) headings for each general type of error or irregularity that can occur and (2) specific descriptions of each such error and irregularity for each of the two major classes of transactions. (For example: 1. Invalid transactions may be recorded. (*a*) Inventory issues: Goods may be shown as shipped/delivered to customers, when in fact they have not been shipped. (*b*) Sales: Sales invoices may be prepared for goods no customer ordered.)

6.30 Kingston Company: Specification of Controls. The essence of this problem is to think: "What keeps the errors and irregularities identified in problem 6.29 from happening and, if they nevertheless happen, what catches them?" With a little experience, you will be able to answer these questions in your head, but, this first time, you should do it in writing.

Required:
Prepare a homework report cross-indexed to your problem 6.29 working paper by 1(*a*), 1(*b*), 2(*a*), 2(*b*), and so on. For each error or irregularity you identified, explain the environmental element, accounting procedure or control procedure that will serve to prevent, detect or correct it. These elements of a control structure need not necessarily be specified or provided in the Kingston case description. You can use your imagination as well.

6.31 Kingston Company: Internal Control Questionnaire. This problem gives you some practice with a questionnaire. You should be able to answer most of the questions using the transaction system descriptions and the accounting and control procedure manual.

EXHIBIT 6–15 BRIDGE WORKING PAPER

Index

By ____________ Date ____________
Reviewed ____________ Date ____________

KINGSTON COMPANY
Credit Approval, Sales Processing, Shipment and Delivery Control
December 31, 2002

	Strength/Weakness	Audit Implication	Audit Program
S-1	Credit approval on sales order.	Credit authorization reduces risk of bad debt loss and helps check on validity of customer identification.	Select a sample of recorded sales invoices, and look for credit manager signature on attached sales order.
S-2	Unit prices are taken from an authorized list.	Prices are in accordance with company policy, minimizing customer disputes.	Using the S-1 sample of sales invoices, vouch prices used thereon to the price lists.
S-3	Sales are not recorded until goods are shipped.	Cutoff will be proper and sales will not be recorded too early.	Using the S-1 sample of sales invoices, compare the recording date to the shipment date on attached bill of lading or copy 4. (Also, scan the "pending shipment" file for old invoices that might represent unrecorded shipments.)
W-1	Shipping personnel have transaction alteration (initiation) authority to change the quantities on invoices, as well as custody of the goods.	Dishonest shipping personnel can alone let accomplices receive large quantities and alter the invoice to charge them for small quantities. In this system, sales and accounts receivable would be understated, and inventory could be overstated.	The physical count of inventory will need to be observed carefully (extensive work) to detect material overstatement.

Required:
Obtain a Sales Transaction Processing internal control questionnaire from your instructor. Answer the questions, leaving blank the items for which information is missing.

6.32 Kingston Company: System Flowchart Documentation. Use the transaction system descriptions and your internal control questionnaire from problem 6.31 as information sources to document the accounting and control system.

Required:
Draw a flowchart of the credit approval/sales processing and shipment/delivery systems. You should be able to put the flowchart on one or two pages. Use a template and ruler. [Hint: The department designations across the top of the flowchart should be (from left to right): Sales Clerks, Credit Manager, Billing Department, Accounts Receivable Department, Inventory Stores and Shipping.]

6.33 Kingston Company: Control Evaluation. After doing the control evaluation work, you should be ready to reach some conclusions about control strengths and weaknesses. At this stage you are not expected to be proficient at writing account balance audit program procedures, but you can start a bridge working paper.

Required:
Prepare a working paper for the audit of Kingston Company as of December 31, 2002, with columns for (1) an index number (*S*-? or *W*-?) cross-referenced to your flowchart prepared in problem 6.32; (2) descriptions of each strength or weakness; (3) audit implications related to transactions or accounts reported in the financial statements; and (4) procedures for the test of controls or account balance audit program. Ask your instructor about the extent/detail you are expected to write in the audit procedures program column.

Introduction

This portion of the Kingston Company case expands the data and builds on the casework done for Chapters 4, 5 and 6. The case requirements below are phrased and presented in terms of nonstatistical sampling. These same requirements are extended in Chapter 20 to deal with statistical calculations.

The company description, organization, personnel and information about the current audit engagement are in the case sections of Chapters 4 and 5. This information was used to write an engagement letter, make a preliminary materiality assessment and perform preliminary analytical procedures.

Accounting and Control Systems

The description of part of the revenue and collection cycle (credit approval and sales processing, and shipment and delivery), the accounting and control procedure manual and the chart of accounts are in the Kingston case section for Chapter 6. This information was used to prepare a company organization chart, identify possible errors and irregularities, specify controls, complete an internal control questionnaire, document the system with a flowchart and evaluate part of the control system with a bridge workpaper.

Test of Controls Audit

Without prejudice to your conclusions on case assignments in previous chapters, assume you have made the conclusions described next.

Your preliminary materiality assessment produced the conclusion that a $71,000 understatement or overstatement of operating income will be material, and a tolerable misstatement of $10,000 for sales under- or overstatement will suit your purposes for planning the audit of sales. Your preliminary analytical procedures show that net sales are down 10 percent ($900,000) from last year, and gross accounts receivable are down 20 percent ($100,000) to $400,000. Operating income increased 47 percent, mainly because cost of goods sold declined proportionately more than sales declined. It looks like the greatest risk is in the inventory and cost of goods sold accounts, but you still need to audit the accounts receivable, in case some sales overstatement is stuck in receivables to mask an actual greater decline in the sales total.

Assume you obtained the following responses to these selected questions from the internal control questionnaire:

4.	Are prenumbered bills of lading or other shipping documents prepared or completed in the shipping department?	Yes.
8.	Are all credit sales approved by the credit department prior to shipment?	Yes. Sales orders approved.
9.	Are sales prices and terms based on approved standards?	Yes. Approved price list.
11.	Are shipped quantities compared to invoice quantities?	Yes. In shipping and A/R.
12.	Are sales invoices checked for error in quantities, prices, extensions and footing, and freight allowances, and checked with customers' orders?	Yes. By A/R department.

17. Does the accounting manual contain instructions to date sales invoices on the shipment date?	Yes.
18. (From accounts receivable control questionnaire): Does someone reconcile the accounts receivable subsidiary to the control account regularly to determine whether all entries are made to customers' accounts?	Yes.

In your bridge workpaper, you concluded that all the specifications in these internal control questionnaire items represent potential control strengths, provided company personnel comply with them properly. Now you need to audit a sample of sales transactions for control compliance. The objectives of your work will be to (1) obtain control evidence about the validity, authorization, accuracy and proper period recording of recorded sales and (2) obtain control evidence about the accuracy and classification of sales postings to customer accounts receivable, so you can justify auditing customer accounts receivable on a sample basis.

Kingston Case Assignments

7.26 Kingston Company: Test of Controls Audit Program. Assume that 10,000 sales invoices were processed during the year ended December 31, and you are performing the test of controls audit on the entire population. The first invoice number this year was 32071 and the last was 42070.

Required:

a. Write an audit program (specify the population from which a sample will be taken, and specify the audit actions) for the test of controls audit of sales transactions for the attributes shown in the columns in Exhibit 7–2. (Hint: The sample documents should be recorded sales invoices, and all the actions can be taken with reference to the sales invoices and other documents that support the sales invoices.)

b. Make a decision about the size of the sample. To facilitate your instructor's presentation of solutions, select one of these sample sizes: 30, 60, 80, 90, 120, 160, 220, 240, 260, 300.

7.27 Kingston Company: Test of Controls Sampling Documentation. Assume you plan to select a random sample by associating each invoice number in the sequence 32071–42070 with a random number from the table in Appendix 14A.

Required:

Using a copy of the Test of Controls Sampling Data Sheet (Exhibit 7.27–1, or obtain a copy from your instructor), fill in the client name and the period covered, specify (define) the objectives of your work, describe the population to be sampled and describe the sample selection process. Under the column headed "Definition of Deviations," write a brief statement of the deviations of interest. Under the heading labelled "Sample Size," insert the sample size you decided in assignment 7.26 above. For the time being, ignore the Sampling Data Sheet column headings related to statistical sampling. (Hint: When defining the deviations, refer to the column headings in Exhibit 7–2.)

When you complete this requirement, you will have completed the first four steps of the test of controls audit process. Keep this Sampling Data Sheet for requirements in other case problems.

7.28 Kingston Company: Perform Test of Controls Procedures. Assume that your random sample was selected using Appendix 20A by starting at the upper left corner, reading four-digit numbers down the column, then proceeding to the top of the next column. This selection method "subtracts a constant (32,071)" and causes the random numbers 0000 through 9999 to be "associated with" the invoice numbers. You get the invoice numbers by adding the constant back to the four-digit random number. For example, the first three numbers and associations are:

Table	Constant	Invoice
3294	+32071	35365
0741	+32071	32812
5998	+32071	38069

EXHIBIT 7–2 TEST OF CONTROLS AUDIT DOCUMENTATION: KINGSTON COMPANY

Index M 10.3

By J C Date 11-11-2002
Review G.D. Date 11-15-2002

KINGSTON COMPANY
Test of Controls Over Recorded Sales
December 31, 2002

Invoice number	Date	Amount	Bill of lading	Credit approved	Approved prices	Quantities match	Arithmetic accurate	Dates match	Posted to customer
35000	Mar. 30	$ 3,000							
35050	Mar. 31	$ 800			X				
35100	Apr. 2	$ 1,200					Y		
35150	Apr. 3	$ 1,500			Y				
35200	Apr. 5	$ 400							
35250	Apr. 6	$ 300	X			X	Y	X	
32100	Jan. 3	$ 1,000							
32150	Jan. 4	$ 200							
34850	Mar. 25	Missing	X	X	X	X	X	X	
34900	Mar. 26	$ 100			Y				
34950	Mar. 27	$ 200							
Sample = 200		$98,000							
Uncorrected deviations			4	9	5	6	3	7	0

X = Uncorrected deviation.
Y = Deviation occurred but was detected and corrected later.

EXHIBIT 7.27–1 TEST OF CONTROLS SAMPLING DATA SHEET

Client ______________________ By ____________

Period covered ______________________ Date ____________

Define the objective(s) ______________________

Population description ______________________

Random selection procedures ______________________

Definition of Deviations	Risk Assess Control Risk Too Low	Tolerable Rate	Expected Deviation Rate	Sample Results			
				Sample Size	Deviations	Sample Rate	CUL
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

Audit Conclusions

A. Effect on audit plan: ______________________

B. Recommendation to management: ______________________

C. Other action: ______________________

Exhibit 7.28–1 contains a list of simulated deviations related to the invoices. This list is designed to accommodate a sample size up to 300 invoices, so please do not try to “audit” a larger sample. The deviations described opposite each invoice number represent the evidence you would obtain if you actually audited the documents. The order of the invoice numbers is the random sample order you obtain by using the selection method described above.

EXHIBIT 7.28–1 KINGSTON COMPANY: RANDOM ORDER, INVOICE, DATE, AMOUNT, CUSTOMER, DEVIATION DESCRIPTION

Order	Invoice	Month	Day	Amount	Customer	Deviation
21	39918	Sep.	23	$5,000	Gonzo	Wrong quantity. Overcharge $250. CM Nov. 5.
37	39357	Aug.	28	$600	Zlat	No credit approval. Unpaid as of Dec. 31.
50	35669	Apr.	18	$700	Grundey	No credit approval. Paid in full on time.
51	41612	Dec.	10	$800	Quilt	No credit approval. Unpaid as of Dec. 31.
52	42056	Dec.	28	$626	#5	Wrong quantity. Overcharge $200. No CM. Unpaid.
61	40812	Nov.	3	$150	Mucho	No credit approval. Unpaid as of Dec. 31.
66	39684	Sep.	13	$500	Fred	No credit approval. Paid in full on time.
67	33762	Feb.	21	$200	Dogg	No credit approval. Paid in full on time.
72	40004	Sep.	27	$3,600	Hiccup	Wrong quantity. Overcharge $180. CM Nov. 4.
79	41985	Dec.	28	$700	#264	Wrong quantity. Overcharge $200. CM Jan. 15.
86	40256	Oct.	8	$150	Ink	No credit approval. Unpaid as of Dec. 31.
89	34233	Mar.	5	$500	Elbert	No credit approval. Paid in full on time.
91	39640	Sep.	11	$9,900	Eric	Arithmetic error. Overcharge $8,100. CM Nov. 1.
104	39036	Aug.	14	$550	Tinker	Wrong price. Overcharge $50. CM Sept. 12.
109	41326	Nov.	27	$250	Only	No credit approval. Unpaid as of Dec. 31.
112	39113	Aug.	17	$500	Vickery	Wrong price. Overcharge $50. CM Sept. 1.
116	41754	Dec.	16	$900	Risky	No credit approval. Unpaid as of Dec. 31.
121	33430	Feb.	11	$300	Charley	Missing BL. Paid in full on time.
123	41774	Dec.	17	$1,100	Stealth	No credit approval. Paid in full on time.
125	37526	June	14	$350	Kirk	No credit approval. Paid in full on time.
132	42065	Dec.	29	$4,500	#863	Arithmetic error. Overcharge $450. CM Jan. 15.
133	33217	Feb.	4	$3,000	Baker	No credit approval. Paid in full on time.
134	41887	Dec.	22	$600	#1106	Held for shipment. BL dated Jan. 4.
137	40725	Oct.	30	$350	Luck	No credit approval. Paid in full on time.
140	41800	Dec.	18	$400	#1352	Held for shipment. BL dated Jan. 4.
143	39160	Aug.	19	$1,100	Xenia	Wrong price. Overcharge $220. CM Sept. 30.
148	39130	Aug.	18	$550	Welsch	Wrong price. Overcharge $50. CM Sept. 20.
154	42042	Dec.	28	$6,000	#109	Wrong quantity. Overcharge $600. No CM. Unpaid.
161	38488	July	19	$1,400	Monkey	No credit approval. Paid in full 60 days.
161	38488					Wrong price. Overcharge $700. CM Aug. 5.
166	38816	Aug.	4	$3,000	Smith	Wrong price. Overcharge $2,000. CM Sept. 10.
180	41898	Dec.	22	$300	Viceroy	No credit approval. Paid in full Jan. 15.
186	39163	Aug.	19	$1,800	Yant	Wrong price. Overcharge $1,650. CM Oct. 4.
190	41341	Nov.	27	$100	Peace	No credit approval. Paid in full on time.
191	38669	July	27	$600	Onan	Wrong price. Overcharge $100. CM Aug. 15.
193	35969	Apr.	24	$200	Hall	Missing BL. Paid in full on time.
225	39439	Aug.	31	$650	Blatz	No credit approval. Paid in full on time.
228	38191	July	6	$800	Lane	No credit approval. Paid in full on time.
228	38191					Wrong price. Overcharge $100. CM Aug. 6.
232	36111	May	1	$9,000	Inmann	No credit approval. Paid in full on time.
234	39485	Sep.	4	$350	Chris	No credit approval. Paid in full on time.
238	40425	Oct.	16	$600	Jack	No credit approval. Paid in full on time.
240	32270	Jan.	6	$1,500	Able	No credit approval. Paid in full on time.
242	37498	June	13	$250	Johnson	No credit approval. Paid in full on time.
245	41306	Nov.	26	$300	Never	No credit approval. Unpaid as of Dec. 31.
252	38582	July	23	$500	Nalle	No credit approval. Paid in full on time.
259	39057	Aug.	14	$4,000	Uecker	Missing BL. Paid in full on time.
265	39578	Sep.	8	$200	Danilof	No credit approval. Unpaid as of Dec. 31.
268	35100	Apr.	1	$950	Figge	No credit approval. Paid in full on time.
269	38773	Aug.	1	$300	Roberts	Wrong price. Overcharge $35. CM Aug. 22.
280	38744	Aug.	1	$750	Quick	Wrong price. Overcharge $25. CM Aug. 10.
289	39436	Aug.	31	$1,150	Action	No credit approval. Paid in full on time.
291	38740	Aug.	1	$1,500	Pell	Wrong price. Overcharge $500. CM Aug. 22.
292	41976	Dec.	28	$450	#719	No credit approval. Unpaid as of Dec. 31.
292	41976					Arithmetic error. Overcharge $350. CM Jan. 15.
296	40686	Oct.	28	$75	Kinko	No credit approval. Unpaid as of Dec. 31.

Since this is a "pretend audit," and the Exhibit 7.28–1 deviation list will accommodate different sample size decisions, you will need to be careful not to "cheat": You are entitled to audit only the sample size you select in the first place. Remember that sampling costs time and money. Thus, you must not pay attention to deviations described on invoices that are not in your sample. You will find your proper stopping place in Exhibit 7.28–1 when you get to the last numbered sample item ("Order" column at left) in your sample size. All subsequent invoices are not in your sample.

Required:

a. Show how invoice number 39918 (number 21 in the "Order" column of Exhibit 7.28–1) was selected in the random number table (Appendix 20A).

b. Use Exhibit 7.28–1 to find your sample-based test of controls audit results. Enter the results in the Sampling Data Sheet you started in assignment 7.27. Evaluate the results quantitatively and qualitatively. Assign an evaluation to control risk related to the probability of sales overstatement being in the accounts receivable balances.

Other information about the simulated samples in Exhibit 7.28–1:

1. You found all the invoices in the sample. None were missing.
2. All the invoices were properly posted to the general ledger sales and accounts receivable control accounts, and each was posted to the right customer's individual account.
3. The invoices not listed in Exhibit 7.28–1 had no deviations related to other documents, recalculations or comparisons.
4. "No credit approval" means that the expected credit approval notation could not be found in the documents.
5. When "Wrong quantity billed" appears, a description of the effect follows.
6. "CM (date)" means the customer notified Kingston of an error and a credit memo was issued on the subsequent date (after December 31 on some occasions). All credit memos generate debits to a sales returns account and credits to accounts receivable.
7. "Unpaid as of Dec. 31" and "Unpaid" means the customer has not yet paid the invoice. "Paid in full on time" means the customer paid the invoice when it was due.
8. "Missing BL" means the bill of lading (shipping document) could not be found.
9. "Wrong price" means the clerks put the wrong unit price on the invoice and billed the customer incorrectly.
10. "Arithmetic error" means you found the invoice multiplied and added to show an incorrect total.
11. "Held for shipment," followed by a bill of lading (BL) date, means the goods were in the shipping area on December 31, and shipped on the BL date.

7.29 Auditing the Trade Accounts Receivable Balance. Jack and Fred are the auditors. They are getting ready to audit Kingston's trade accounts receivable.

Jack: Where's the trial balance?

Fred: Here it is. Kingston lists 1,506 customer balances, totaling $400,000. The balances range from $1 to $25,000.

Jack: Yesterday we decided the tolerable misstatement in receivables could be $10,000. That is, we want to audit for sales and receivables overstatement so we won't miss more than $10,000, if that much misstatement is in the account.

Fred: Monetary misstatements are a possibility. Last year, we audited 500 customer accounts selected at random and found $2,000 in overstatements. That computed to a projected likely misstatement of $4,000. Maybe $4,000 overstatement misstatement is in this year's balance, too.

Jack: Mmmmm (thoughtfully). Any individually big balances this year?

Fred: Kingston shows six balances over $10,000 for a total of $100,000. We ought to pull them out of the population for complete audit.

Jack: Agreed. No use taking chances.

Fred: Our analytical procedures related to receivables didn't show much. The total is down, consistent with the sales decline, so the turnover is up a little. If any misstatement is in the receivables total, it may be too small to be obvious in the ratios.

Jack: That's good news if the problems are immaterial. Too bad we can't say analytical procedures reduce our audit risk. What about internal control?

Fred: I say it's about a 50–50 proportion. Sometimes control seemed to work well, sometimes it didn't. I noticed a few new people doing the invoice processing last week when we were here for a conference. Incidentally, I lump the inherent risk problems and internal control risk problems together when I think about control risk. Anyway, firm policy is to plan a sample for a low overall audit risk for the receivables.

Jack: According to the audit program, we will confirm a sample of customer accounts, send second requests after a week, then chase down all the nonrespondents by vouching all the charges and credits in the account to supporting documents or vouching to the customers' payments in January. I'm sorry about the time it takes, and our audit cost, of doing these procedures.

Fred: I am, too. If our first sample is not large enough, we won't have time to send more confirmations. Adding accounts to the sample means we will need to audit them the same way we audit nonrespondents, and that costs more than confirmations.

Jack: Let's take a chance on needing to add to the sample. If it all works out all right, we'll save a lot of time and meet our time budget for the work.

Fred: Well, the team took a large sample last year. Let's think about it.

The auditors decided to audit all six of the customer balances over $10,000, and they discovered the following:

Account No.	Balance	Confirmation and Document Examination
109	$12,337	Wrong quantity billed on invoice ?42042, December 28, overcharged $600.
458	12,129	No error.
859	25,000	No error.
863	16,129	Arithmetic error in invoice ?42065, December 29, overcharged $450.
1092	15,005	No error.
1456	19,400	No error.

Required:
Using the information in the auditors' dialogue, but without using statistical calculations, decide on and justify a sample size from the other 1,500 accounts receivable. (To facilitate your instructor's presentation of solutions, choose one of the following sample sizes: 100, 150, 200, 220, 230, 240, 260, 280, 300, 320, 340, 360, 380, or 400.) Assume that the audit of each customer's account in the initial sample costs an average of $8, and each one added later costs $19.

7.30 Kingston Company: Calculation of Quantitative Evidence. Study the dialogue in Kingston assignment 7.29.

a. If you choose to audit a nonstatistical sample consisting of the largest accounts, your sample will not be considered random, although you will cover a large dollar amount of the total. Exhibit 7.30–1 contains a list and totals of the differences you could discover with each sample size. The customer accounts with no differences are not listed, but their total is included in each sample subtotal in the "Balance" column.

Required:
Use the sample data for the sample size you selected. Analyse the amount and nature of the dollar differences and decide whether the $300,000 recorded amount in the 1,500 accounts is or is not materially misstated.

EXHIBIT 7.30–1 **KINGSTON COMPANY: 400 LARGEST ACCOUNTS RECEIVABLE (with monetary errors)**

Account No.	Size Order	Balance	Wrong Quantity	Wrong Math	Wrong Date	All Error	Confirmation and Document Examination
741	5	$3,698		$100		$100	Arithmetic error invoice #41476.
264	7	$1,906	$200			$200	Wrong quantity invoice #41985, Dec. 28.
1106	8	$1,555			$600	$600	Shipped to us on Jan. 4, invoice #41887.
1352	28	$700			$400	$400	Shipped to us on Jan. 4, invoice #41800.
5	78	$626	$200			$200	Wrong quantity invoice #42056, Dec. 28.
1147	81	$623	$123			$123	Wrong quantity billed invoice #41474.
720	82	$622			$125	$125	Shipped to us on Jan. 4, invoice #41891.
444	83	$621	$106			$106	Wrong quantity billed invoice #41482.
1421	85	$539			$138	$138	Shipped to us on Jan. 4, invoice #41895.
775	86	$538	$139			$139	Wrong quantity billed invoice #41490.
1428	89	$536			$126	$126	Shipped to us on Jan. 4, invoice #41900.
1199	90	$536	$133			$133	Wrong quantity billed invoice #41498.
378	91	$536			$148	$148	Shipped to us on Jan. 4, invoice #41903.
1265	93	$534	$108			$108	Wrong quantity billed invoice #41506.
1485	95	$532			$132	$132	Shipped to us on Jan. 4, invoice #41907.
50	96	$531	$119			$119	Wrong quantity billed invoice #41514.
1096	97	$528			$128	$128	Shipped to us on Jan. 4, invoice #41911.
403	99	$525	$115			$115	Wrong quantity billed invoice #41522.
Sample =	100	$86,082	$1,243	$100	$1,797	$3,140	
1206	101	$524			$119	$119	Shipped to us on Jan. 4, invoice #41916.
955	102	$521	$102			$102	Wrong quantity billed invoice #41530.
486	103	$519			$129	$129	Shipped to us on Jan. 4, invoice #41919.
483	104	$519	$119			$119	Wrong quantity billed invoice #41538.
148	107	$518			$115	$115	Shipped to us on Jan. 4, invoice #41920.
774	109	$517			$140	$140	Shipped to us on Jan. 4, invoice #41929.
1434	110	$517	$127			$127	Wrong quantity billed invoice #41547.
476	112	$514			$114	$114	Shipped to us on Jan. 4, invoice #41931.
1118	113	$511	$145			$145	Wrong quantity billed invoice #41554.
292	115	$508			$136	$136	Shipped to us on Jan. 4, invoice #41935.
465	117	$507	$136			$136	Wrong quantity billed invoice #41562.
890	118	$506			$122	$122	Shipped to us on Jan. 4, invoice #41939.
1127	119	$504	$140			$140	Wrong quantity billed invoice #41570.
1497	121	$503	$133			$133	Wrong quantity billed invoice #41578.
25	122	$503			$115	$115	Shipped to us on Jan. 4, invoice #41943.
535	124	$500			$107	$107	Shipped to us on Jan. 4, invoice #41947.
21	127	$499	$116			$116	Wrong quantity billed invoice #41586.
845	128	$499			$111	$111	Shipped to us on Jan. 4, invoice #41951.
482	129	$498	$120			$120	Wrong quantity billed invoice #41594.
165	130	$498			$108	$108	Shipped to us on Jan. 4, invoice #41958.
943	132	$494	$112			$112	Wrong quantity billed invoice #41602.
725	133	$494			$119	$119	Shipped to us on Jan. 4, invoice #41959.
366	134	$492			$112	$112	Shipped to us on Jan. 4, invoice #41963.
1223	136	$492	$108			$108	Wrong quantity billed invoice #41610.
1047	138	$490			$100	$100	Shipped to us on Jan. 4, invoice #41967.
412	140	$489			$133	$133	Shipped to us on Jan. 4, invoice #41972.
468	141	$489	$109			$109	Wrong quantity billed invoice #41619.
330	142	$489	$99			$99	Wrong quantity billed invoice #41626.
654	144	$482			$137	$137	Shipped to us on Jan. 4, invoice #41974.
1387	145	$482	$139			$139	Wrong quantity billed invoice #41637.
632	147	$476	$130			$130	Wrong quantity billed invoice #41644.
374	148	$476			$117	$117	Shipped to us on Jan. 4, invoice #41979.
843	150	$475			$128	$128	Shipped to us on Jan. 4, invoice #41983.
Sample =	150	$111,087	$3,078	$100	$3,959	$7,137	
436	151	$471	$128			$128	Wrong quantity billed invoice #41653.
1490	153	$470			$117	$117	Shipped to us on Jan. 4, invoice #41987.

EXHIBIT 7.30–1 (*continued*)

Account No.	Size Order	Balance	Wrong Quantity	Wrong Math	Wrong Date	All Error	Confirmation and Document Examination
820	154	$470	$132			$132	Wrong quantity billed invoice #41660.
530	156	$469			$144	$144	Shipped to us on Jan. 4, invoice #41991.
380	158	$467	$117			$117	Wrong quantity billed invoice #41668.
1504	159	$467			$104	$104	Shipped to us on Jan. 4, invoice #41995.
452	161	$461	$111			$111	Wrong quantity billed invoice #41679.
662	163	$460			$116	$116	Shipped to us on Jan. 4, invoice #41999.
173	165	$458	$115			$115	Wrong quantity billed invoice #41688.
580	167	$457			$107	$107	Shipped to us on Jan. 4, invoice #42003.
1200	168	$456	$139			$139	Wrong quantity billed invoice #41695.
44	170	$450			$105	$105	Shipped to us on Jan. 4, invoice #42007.
719	171	$450		$350		$350	Arithmetic error invoice #41976, Dec. 28.
160	172	$449			$118	$118	Shipped to us on Jan. 4, invoice #42013.
1458	173	$449	$126			$126	Wrong quantity billed invoice #41709.
1308	176	$448	$120			$120	Wrong quantity billed invoice #41716.
386	179	$445	$114			$114	Wrong quantity billed invoice #41723.
924	181	$398	$112			$112	Wrong quantity billed invoice #41731.
959	184	$394	$109			$109	Wrong quantity billed invoice #41740.
308	187	$394			$125	$125	Shipped to us on Jan. 4, invoice #42014.
236	188	$393			$113	$113	Shipped to us on Jan. 4, invoice #42019.
1464	189	$391	$101			$101	Wrong quantity billed invoice #41746.
1005	193	$388			$89	$89	Shipped to us on Jan. 4, invoice #42023.
822	194	$387	$187			$187	Wrong quantity billed invoice #41755.
145	197	$383			$78	$78	Shipped to us on Jan. 4, invoice #42027.
Sample =	200	$132,611	$4,689	$450	$5,175	$10,314	
902	201	$382	$102			$102	Wrong quantity billed invoice #41768.
1242	205	$380			$67	$67	Shipped to us on Jan. 4, invoice #42031.
616	207	$379	$100			$100	Wrong quantity billed invoice #41770.
1246	212	$378			$72	$72	Shipped to us on Jan. 4, invoice #42034.
379	220	$367			$67	$67	Shipped to us on Jan. 5, invoice #42039.
Sample =	220	$140,122	$4,891	$450	$5,381	$10,722	
1463	226	$364			$64	$64	Shipped to us on Jan. 5, invoice #42044.
Sample =	230	$143,760	$4,891	$450	$5,445	$10,786	
239	233	$357			$58	$58	Shipped to us on Jan. 5, invoice #42047.
422	235	$353	$114			$114	Wrong quantity billed invoice #41775.
1466	239	$351			$59	$59	Shipped to us on Jan. 5, invoice #42051.
Sample =	240	$147,297	$5,005	$450	$5,562	$11,017	
1079	246	$346			$50	$50	Shipped to us on Jan. 5, invoice #42053.
1013	249	$342	$50			$50	Wrong quantity billed invoice #41782.
368	252	$337		$17		$17	Arithmetic error invoice #41475.
4	257	$330	$98			$98	Wrong quantity billed invoice #41791.
Sample =	260	$154,085	$5,153	$467	$5,612	$11,232	
1046	261	$326			$66	$66	Shipped to us on Jan. 5, invoice #42059.
1266	262	$326		$12		$12	Arithmetic error invoice #41484.
507	266	$319	$80			$80	Wrong quantity billed invoice #41801.
986	269	$313		$14		$14	Arithmetic eror invoice #41492.
787	273	$311	$77			$77	Wrong quantity billed invoice #41810.
867	277	$306		$11		$11	Arithmetic error invoice #41501.
Sample =	280	$160,362	$5,310	$504	$5,678	$11,492	
1363	281	$303			$43	$43	Shipped to us on Jan. 5, invoice #42064.
1274	282	$302	$82			$82	Wrong quantity billed invoice #41815.

EXHIBIT 7.30–1 *(concluded)*

Account No.	Size Order	Balance	Wrong Quantity	Wrong Math	Wrong Date	All Error	Confirmation and Document Examination
59	284	$301		$14		$14	Arithmetic error invoice #41510.
417	291	$293			$53	$53	Shipped to us on Jan. 5, invoice #42067.
1494	292	$291	$65			$65	Wrong quantity billed invoice #41822.
293	294	$288		$13		$13	Arithmetic error invoice #41519.
349	299	$284		$14		$14	Arithmetic error invoice #41528.
Sample =	300	$166,218	$5,457	$545	$5,774	$11,776	
1088	301	$283	$78			$78	Wrong quantity billed invoice #41830.
900	307	$280		$12		$12	Arithmetic error invoice #41537.
131	309	$280	$69			$69	Wrong quantity billed invoice #41838.
1402	316	$276	$76			$76	Wrong quantity billed invoice #41847.
243	317	$276		$15		$15	Arithmetic error invoice #41546.
1114	320	$272			$32	$32	Shipped to us on Jan. 5, invoice #42069.
Sample =	320	$164,280	$5,478	$572	$5,600	$11,650	
1124	326	$267		$15		$15	Arithmetic error invoice #41555.
157	328	$264	$63			$63	Wrong quantity billed invoice #41855.
942	334	$260	$59			$59	Wrong quantity billed invoice #41860.
487	336	$259		$10		$10	Arithmetic error invoice #41564.
Sample =	340	$177,055	$5,802	$597	$5,806	$12,205	
67	343	$254	$66			$66	Wrong quantity billed invoice #41868.
15	345	$253		$15		$15	Arithmetic error invoice #41573.
1409	352	$246	$52			$52	Wrong quantity billed invoice #41876.
933	353	$245		$12		$12	Arithmetic error invoice #41582.
1101	359	$241	$62			$62	Wrong quantity billed invoice #41885.
Sample =	360	$182,003	$5,982	$624	$5,806	$12,412	
121	363	$237		$11		$11	Arithmetic error invoice #41591.
387	367	$232	$55			$55	Wrong quantity billed invoice #41894.
539	373	$229		$10		$10	Arithmetic error invoice #41600.
401	377	$227	$57			$57	Wrong quantity billed invoice #41905.
Sample =	380	$186,627	$6,094	$645	$5,806	$12,545	
204	382	$224		$11		$11	Arithmetic error invoice #41609.
333	385	$222	$32			$32	Wrong quantity billed invoice #41915.
605	390	$212		$14		$14	Arithmetic error invoice #41618.
338	394	$210	$50			$50	Wrong quantity billed invoice #41924.
1322	397	$206	$56			$56	Wrong quantity billed invoice #41923.
168	399	$205		$12		$12	Arithmetic error invoice #41627.
Sample =	400	$190,899	$6,232	$682	$5,806	$12,720	

b. If you choose to audit an unrestricted, unstratified random sample of the customer accounts, you will be able to project the likely misstatement using (1) the difference method, and (2) the ratio method. Exhibit 7.30–2 contains a list of the misstatements you could find in one random selection. The list is subdivided to show totals at the various sample sizes. The customer accounts with no differences are not listed, but their total is included in each sample subtotal in the "Balance" column.

Required:

Use the sample data for the sample size you selected. (1) Determine the dollar amount of known misstatement. (2) Calculate the projected likely misstatement using (*a*) the difference method, and (*b*) the ratio method. (3) Analyse the nature of the dollar differences. (4) Decide whether the $300,000 recorded amount in the 1,500 customer accounts is or is not materially misstated.

EXHIBIT 7.30–2 KINGSTON COMPANY: MISSTATEMENTS IN RANDOM SAMPLE OF 400 ACCOUNTS RECEIVABLE

Account No.	Random Order	Account Balance	Wrong Quantity	Wrong Math	Wrong Date	All Error	Confirmation and Document Examination
292	6	$508			$136	$136	Shipped to us on Jan. 4, invoice #41935.
591	11	$153		$6		$6	Arithmetic error invoice #41825.
4	15	$330	$98			$98	Wrong quantity billed invoice #41791.
362	23	$141		$5		$5	Arithmetic error invoice #41899.
1079	28	$346			$50	$50	Shipped to us on Jan. 5, invoice #42053.
465	30	$507	$136			$136	Wrong quantity billed invoice #41562.
725	31	$494			$119	$119	Shipped to us on Jan. 4, invoice #41959.
820	39	$470	$132			$132	Wrong quantity billed invoice #41660.
225	55	$117		$11		$11	Arithmetic error invoice #41744.
1160	57	$147		$6		$6	Arithmetic error invoice #41862.
1096	93	$528			$128	$128	Shipped to us on Jan. 4, invoice #41911.
165	97	$498			$108	$108	Shipped to us on Jan. 4, invoice #41958.
Sample =	100	$21,336	$366	$28	$541	$935	
308	102	$394			$125	$125	Shipped to us on Jan. 4, invoice #42014.
50	106	$531	$119			$119	Wrong quantity billed invoice #41514.
1274	113	$302	$82			$82	Wrong quantity billed invoice #41815.
1494	115	$291	$65			$65	Wrong quantity billed invoice #41822.
386	119	$445	$114			$114	Wrong quantity billed invoice #41723.
506	122	$162		$7		$7	Arithmetic error invoice #41771.
1387	133	$482	$139			$139	Wrong quantity billed invoice #41637.
473	149	$175	$25			$25	Wrong quantity billed invoice #42063.
1402	150	$276	$76			$76	Wrong quantity billed invoice #41847.
Sample =	150	$30,800	$986	$35	$666	$1,687	
1141	153	$148		$8		$8	Arithmetic error invoice #41853.
1047	154	$490			$100	$100	Shipped to us on Jan. 4, invoice #41967.
954	156	$185	$45			$45	Wrong quantity billed invoice #42011.
1352	157	$700			$400	$400	Shipped to us on Jan. 4, invoice #41800.
242	162	$132		$7		$7	Arithmetic error invoice #41955.
841	163	$178	$38			$38	Wrong quantity billed invoice #42043.
1320	170	$134		$6		$6	Arithmetic error invoice #41945.
654	172	$482			$137	$137	Shipped to us on Jan. 4, invoice #41974.
486	192	$519			$129	$129	Shipped to us on Jan. 4, invoice #41919.
417	197	$293			$53	$53	Shipped to us on Jan. 5, invoice #42067.
Sample =	200	$38,709	$1,069	$56	$1,485	$2,610	
663	214	$176	$36			$36	Wrong quantity billed invoice #42058.
959	217	$394	$109			$109	Wrong quantity billed invoice #41740.
Sample =	220	$42,852	$1,214	$56	$1,485	$2,755	

EXHIBIT 7.30–2 *(concluded)*

Account No.	Random Order	Account Balance	Wrong Quantity	Wrong Math	Wrong Date	All Error	Confirmation and Document Examination
Sample =	230	$48,556	$1,214	$56	$1,485	$2,755	
160	234	$449			$118	$118	Shipped to us on Jan. 4, invoice #42013.
440	237	$120		$12		$12	Arithmetic error invoice #42015.
Sample =	240	$50,957	$1,214	$68	$1,603	$2,885	
378	241	$536			$148	$148	Shipped to us on Jan. 4, invoice #41903.
780	254	$177	$47			$47	Wrong quantity billed invoice #42050.
349	256	$284		$14		$14	Arithmetic error invoice #41528.
Sample =	260	$54,765	$1,261	$82	$1,751	$3,094	
145	262	$383			$78	$78	Shipped to us on Jan. 4, invoice #42027.
157	269	$264	$63			$63	Wrong quantity billed invoice #41855.
632	275	$476	$130			$130	Wrong quantity billed invoice #41644.
Sample =	280	$59,224	$1,454	$82	$1,829	$3,365	
798	284	$136		$10		$10	Arithmetic error invoice #41927.
59	290	$301		$14		$14	Arithmetic error invoice #41510.
539	298	$229		$10		$10	Arithmetic error invoice #41600.
651	300	$179	$60			$60	Wrong quantity billed invoice #42035.
Sample =	300	$61,995	$1,514	$116	$1,829	$3,459	
774	305	$517			$140	$140	Shipped to us on Jan. 4, invoice #41929.
1114	315	$272			$32	$32	Shipped to us on Jan. 4, invoice #42069.
1370	317	$160		$8		$8	Arithmetic error invoice #41789.
280	319	$162		$9		$9	Arithmetic error invoice #41780.
Sample =	320	$65,672	$1,514	$133	$2,001	$3,648	
330	335	$489	$99			$99	Wrong quantity billed invoice #41626.
Sample =	340	$68,732	$1,613	$133	$2,001	$3,747	
1026	343	$115		$5		$5	Arithmetic error invoice #42045.
943	355	$494	$112			$112	Wrong quantity billed invoice #41602.
Sample =	360	$71,126	$1,725	$138	$2,001	$3,864	
535	379	$500			$107	$107	Shipped to us on Jan. 4, invoice #41947.
Sample =	380	$73,719	$1,725	$138	$2,108	$3,971	
1377	384	$179		$12		$12	Arithmetic error invoice #41735.
Sample =	400	$76,069	$1,725	$150	$2,108	$3,983	
Total		$76,069	$1,725	$150	$2,108	$3,983	
Number of differences			20	17	17	54	
Average			$86.25	$8.82	$124.00	$73.76	

Kingston Company

Computer Introduction

The description of the Kingston Company in Chapters 4 and 5 mentioned a new information systems department. To make the case more realistic to actual data processing methods used by a business of this size, the case now introduces you to Kingston's computerized accounting system.

The information systems department became active in July. At that time the director, Lynn Thomas, was promoted to vice president. Kingston obtained its Hewlett-Packard (HP) minicomputer soon after and began testing the hardware and software. Lynn decided to use the HP accounting software. The testing of the HP computer system progressed throughout the early fall with the accounting processing run on both the old manual system and the new computer system for the month of September. On October 1 Kingston converted to the HP system.

As the new computer system was designed and customized to Kingston's needs, every effort was made to keep as many as possible of the procedures and business documents used in the manual system. This made the transition to the computer system easy for the employees, thus reducing training and employee objections to the computer. Further, most of the controls and duties previously described were retained.

Hardware Description

You will not be too concerned with the computer hardware in this case; however, to make the case realistic, a Hewlett-Packard Business Computer System is assumed. The main memory of the computer has 320 MB (megabytes, or 320 million bytes) of storage capacity. This system can support 400 terminals, although fewer are used by Kingston. The system utilizes several disk drives on which the computer software and the active accounting databases are stored. Two tape drives are online to provide the logging of transactions and to provide means to back up the data on the disk drives. The computer room contains two printers—a laser printer and a 1,000-lines-per-minute contact printer. A 200-characters-per-second printer is located in the accounting department.

Accounting Software

The financial accounting software is an integrated application combining a comprehensive set of general ledger, accounts receivable and accounts payable functions. The package is used through a series of menu screens that appear on the user's terminals. The accounting personnel are guided through each application by these means. By pressing a key labelled with a particular function (function key), users are guided up and down the menu hierarchy.

Two levels of security are provided in the system. The terminals require a special password to allow their use. Access to any function (data entry, data review, report invocation) for each unique set of transactions is controlled by another set of passwords. Thus, allowed operations are isolated to the department that must enter and use the data. For example, the order entry accounting clerks cannot access the cash disbursement records or enter cash disbursement transactions without knowledge of the appropriate passwords.

The financial accounting system allows online entry with online data validation and online posting. However, to provide better control, Kingston has elected to utilize batch entry, deferred validation and deferred posting. In this mode the data are not validated at the time of entry. A special input validation routine, which reports all validation errors, is employed after the batches are balanced. The erroneous entries can be corrected through maintenance functions. The transfers of transactions from the accounts receivable and accounts payable modules to the general ledger module also are done in batch mode.

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                          HP FINANCIAL ACCOUNTING

General Accounting Menu                                                GA MENU
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Company C100            Company Name: Kingston Company

GL MAIN MENU            General Ledger Module

AR MAIN MENU            Accounts Receivable Module

AP MAIN MENU            Accounts Payable Module

PAR MENU                Global and module specific parameter

MODIFY DEFAULTS         Modify company default

BYE                     Return to security screen

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_____________________________________________________________________________
GL MAIN     AR MAIN     AP MAIN     PAR                 modify   BYE
  MENU        MENU        MENU      MENU               defaults
_____________________________________________________________________________
```

Batches are validated and posted every night; thus, the detailed accounting records are never more than one day from being accurate. Jonathan Roberts, the internal audit manager, insisted that Kingston start the accounting processing in this mode to establish control. As employees become more familiar with the terminal entry and control over transaction entry proves adequate, he will consider moving to online data entry and online input validation.

Organization and Duties of Information Systems Personnel

The information systems department consists of the director of MIS (management information systems), Lynn Thomas, a systems development project manager, and two programmer/analysts, an operations manager (who also serves as the librarian and control clerk), and two machine operators. Following is a brief summary of the responsibilities and duties of each.

Director of MIS

The director of MIS is responsible for the overall computer processing. Included in her responsibilities are long-range planning, setting policy and procedures for information systems (IS) employees, approving all equipment purchases and preparing the department budget. The director also provides the primary contact with other department vice presidents and has overall responsibility for training other department personnel in the use of the new system. She works with the systems development manager and the various users to set priorities for the programmer/analysts.

Systems Development Project Manager

The project manager is primarily responsible for all modifications to the financial accounting system and other systems development projects. He creates the specifications for projects after consultation with the users and assigns projects to the programmer/analysts. Other responsibilities include interface with the users on a one-to-one basis to resolve their problems and consider their requests for modifications, education of the programmer/analysts and working with the HP service representatives on software problems.

Operations Manager

The operations manager's primary responsibilities are to ensure that the computer is operating properly and to direct the work of the two operators. Additional duties include system security, librarian, database administrator and control clerk. The operations manager also is the person who works with HP hardware service and maintenance personnel.

Kingston Case Assignments

8.36 Effect of the Kingston Computer on Planning. Anderson, Olds & Watershed (AOW) were aware of the pending computer installation. In fact, the planned conversion was discussed and AOW was advised of the conversion process by the director of internal audit.

Mr. Wardlaw, the AOW engagement partner, has called you into his office to discuss the planning and staffing of the Kingston engagement. He is particularly concerned with how the processing of the last quarter's transactions by the computer will affect AOW's audit this year.

Required:
Assume you are the senior for the Kingston audit. Draft a memo to Mr. Wardlaw indicating how planning might be affected by the computer processing of accounting transactions. Organize your memo by the planning considerations mentioned in this chapter (extent computer used, complexity of computer operations, organization structure of computer activities, availability of data, computer-assisted audit techniques and need for specialized skills). You will find it helpful to review the chapter material on the micro-minicomputer environment.

8.37 Kingston Company Information Systems Department Duties. One of Mr. Wardlaw's specific concerns is whether there is adequate separation of duties within the information systems department. He is not very knowledgeable about computers and computer accounting processing and, therefore, is relying on you to educate him on the proper separation of computer duties and whether AOW should have concerns about the organization of Kingston's new information systems department.

Required:
Draft a memo to Mr. Wardlaw indicating (*a*) proper separation of duties in any computer data processing department and (*b*) a description of the deficiencies in separation of duties that exist in the Kingston Company's information systems department.

8.38 Documentation of Kingston Company's Computer Processing. Documentation of the computer accounting system was described in this chapter as a primary source of information for the auditor in understanding the system as part of the preliminary review. Although the case description in this chapter did not mention documentation, there is documentation describing the system, especially since the hardware and accounting software was purchased from Hewlett-Packard.

Required:
Prepare a list of hardware and software documentation that you would expect to find at the Kingston Company that describes its new computer accounting system and that would be useful to you as an auditor in understanding the flow of transactions and the computer controls.

8.70 Kingston Company: Preparation of Test Data. You have gathered the information regarding the sales invoices, which are entered online but not processed until they are batch balanced and validated. The information entered includes a transaction code, batch number and date, invoice date, invoice number, sales tax code, customer number, inventory item numbers and quantities shipped, bill of lading number and total invoice amounts (sales). The sales total is a check figure computed by hand to be compared to the total of the extensions of individual inventory items. The computer multiplies the quantity entered by the price from a product price master file, enters the amount in the final invoice, and sums these extensions. There are some problems with this program.

EXHIBIT 8.15–1 DECISION LOGIC TABLE

	Test Data Transactions														
Conditions	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Customer code number in field	n	y	y	y	y	y	y	n	n	n	y	y	y	y	y
Customer number is valid		n	y	y	y	y	y				n	n	n	n	y
Bill of lading document number in field	y	y	n	y	y	y	y	n	y	y	n	y	y	n	y
Sales amount < 25,000	y	y	y	n 25,500		y	y	y	n 25,501	y	y	y 24,999		n 27,000	y
Sales amount = 25,000					n 25,000							n 25,000			
Sales amount = 0						n 0									
Sales amount < 0							n −100			n −5,000					
Actions															
Error messages	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
No error message															X

Document count control total = 15.
Sales dollar batch control for test = $? positive amounts.
? negative amounts.
$?

y = valid condition.
n = invalid condition.

Test data transactions are going to be used to test the validation programs for the following items:

1. No customer number (missing data test).
2. Invalid customer number (incorrect check digit for customer number entered; error may be in the number entered or in the check digit).
3. No bill of lading number (missing data test).
4. Sales greater than $25,000 (limit test).
5. Zero sales (missing data test).
6. Negative sales (reasonableness test).

The audit manager has prepared the decision logic table, shown in Exhibit 8.15–1, to indicate the 15 test transactions that should be prepared. Note that you will have to compute only one customer number with the wrong check digit (use for test transactions 2, 11–14) and one customer number with the correct check digit (use for test transactions 3–7, and 15). Also note that you should compute the total sales value of your test transactions as a batch control total.

Required:

a. Prepare the data for 15 simulated transactions for using test data to evaluate the input validation controls over sales invoices listed above.

To keep this problem reasonable, you are directed to prepare simulated test data for only the following input items:

- Customer number—5 digits plus check digit (using modules 11 prime number method illustrated in Chapter 11).
- Bill of lading number—3 digits.
- Total sales values—6 digits with no cents.

Present the 15 transactions in a schedule like this:

Transaction No.	Customer No.	BOL No.	Sales Value
1.			
2.			
.			
.			
.			
15			

b. Assume that when the test data were run through Kingston's validation program, test transactions (3), (8), (11), and (14) failed to produce an error message that no bill of lading number was in the field. What effect could this weakness (noncompliance with a desired control) have on the audit? In other words, what financial statement accounts would be affected that would require changing the nature, timing or extent of substantive audit procedures?

8.71 Kingston Company: GAS and Online Controls. The Kingston Company maintains the accounts receivable subsidiary ledger in a computer database. Assume that Anderson, Olds & Watershed has a generalized audit software package that will operate on the Hewlett-Packard minicomputer. The audit partner has decided to stratify the accounts receivable population of 1,506 accounts and send positive confirmations to the 6 accounts with the largest balances and send negative confirmations to a random sample of 93 of the remaining accounts.

Required:

a. Assume you are going to use the GAS package to select the customer accounts and prepare the confirmations. List the steps (in general terms) required in the following phases: defining the audit objective, planning and application design.

b. Since the Kingston company has converted the sales order, billing and shipping system to a computer system, Jonathan Roberts, Kingston's internal audit department director, is concerned about ongoing auditability of the system. He has heard of something called integrated test facility and asks you to explain it to him. Draft a memo to him describing, in general terms, what ITF is and how it might be utilized in Kingston's accounts receivable accounting system.

8.72 Kingston Company: Use of the Personal Computer as an Audit Tool. Anderson, Olds & Watershed recently has obtained several portable personal computers but has not used them on any audit to date. Dalton Wardlaw has called you to his office again because he has learned that you used personal computers in your accounting courses at The Big University. As you know, Dalton is not too comfortable with computers but is eager to learn and is most interested in using the latest technology. He asks you to describe how the personal computer might be used on the Kingston Company engagement.

Required:

Prepare a memo to Dalton Wardlaw explaining how the personal computer could be used in the audit of the Kingston Company. Be specific about what correspondence, memos and auditing working papers (covered in the textbook) could be prepared and maintained on the personal computer. Explain how this could save audit time as well as make the audit easier for Wardlaw to supervise and review.

Kingston Case Assignments

9.29 ICQ Items: Objectives and Errors from Control Weaknesses. Anderson, Olds & Watershed auditors began the assessment of control risk by considering the possible errors and irregularities that could occur in the Kingston revenue and collection cycle.

Required:
Refer to the internal control questionnaire on cash receipts (Appendix 9A–1) and assume the answer to each question is no. Prepare a table matching the questions to the possible "errors" or "irregularities" that could occur because of the absence of the control. The column headings of your table should be:

Question Number	Possible Error or Irregularity Due to Control Weakness

9.30 ICQ Sales Transaction Processing. The internal control questionnaire (on the next page) for the sales processing of the Kingston Company is from Appendix 9A-2. The Anderson, Olds & Watershed audit senior prefers questionnaires that are organized by control objectives and has prepared this one for you to determine the proper answers.

Required:
Prepare the answers to the questionnaire on sales transactions. You do not need to write the questions; simply identify the question number and your response on the description of the sales transaction processing described in the Kingston case at the end of Chapters 4 and 5. For yes answers, add a comment stating which department and clerk does the function.

9.31 Bridge Working Paper for Cash Receipts. A bridge working paper was described in Chapter 6 as a means of connecting the control evaluation to subsequent test of controls and substantive procedures. The major strengths are related to the test of controls procedures, and the major weaknesses require suggestions for the substantive procedures. (See Exhibit 6–12 for an example.)

Required:
The audit senior has directed you to evaluate the controls over cash receipts for Kingston Company using the company description at the end of Chapter 4 and 5, Exhibit 9–3 (cash receipts processing flowchart), and Exhibit 9A-1 in Appendix 9A (cash receipts processing internal control questionnaire). Prepare the bridge working paper for cash receipts. You will find it helpful to refer to Exhibit 9–6 (test of controls audit procedures) and Exhibit 9B-1 in Appendix 9B (substantive procedures for cash).

9.32 Matching ICQ Questions to Test of Controls Audit Program. The internal control questionnaires have been organized by control objectives. These control objectives become audit objectives when the controls are tested. The senior on the Kingston audit has another assignment for you. She wants the ICQ questions cross-referenced to the audit program.

Required:
Prepare a table listing the question numbers for the ICQ in Exhibit 9A-3 in Appendix 9A (accounts and notes receivable), and opposite each question number list the related test of controls audit procedure number(s) from the audit program in Exhibit 9–6.

9.33 Accounts Receivable Confirmations. The Kingston Company maintains the accounts receivable subsidiary ledger on a computer database. Assume that 93 negative confirmations have been mailed. Also, six positive confirmations were sent to the customers with the largest balances.

EXHIBIT 9–8 ACCOUNTS RECEIVABLE AGED TRIAL BALANCE

D-2 KINGSTON COMPANY Prepared GD
PG. 1 OF 15 ACCOUNTS RECEIVABLE Date 1-12-03
December 31, 2002 Reviewed Terri Tough
Date 1-17-03

	Current	Aged 30-60 Days	Aged 61-90 Days	Aged Over 90 Days	Total	Jan. 2003 Collection Current	Jan. 2003 Collection Past Due
Able Hardware	12,337 ✗				12,337 ✗ PC u	12,337	
Baker Supply	712				712	712	
Charley Company	1,486 ✗	420 ✗			1,906 ✗ PC	1,486	420
Dogg General Store				755	755		
Welsch Windows			531 ✗		531 ✗ NC		531
Zlat Stuff Place				214	214		214
Balance per books	335,000	30,000	20,000	15,000	400,000 g	320,000	25,000
Billing errors	(11,000)		(1,000)		(12,000) 1		
Adjusted balance	324,000	30,000	19,000	15,000	388,000		

✗ Traced to accounts receivable subsidiary ledger.

PC Positive confirmation mailed Jan. 4. Replies D-2.3

NC Negative confirmation mailed Jan. 4. Replies D-2.4

u No reply to positive confirmation, vouched charges to invoices.

g Traced to general ledger control account.

1 Billing error adjustment explained on working paper D-2.2

Note: See D-2.2 for analysis of doubtful accounts and our test of reasonableness

Required:

Prepare a memo addressing the following issues:

a. Identify and describe the two forms of accounts receivable confirmation requests and indicate what factors should be considered in determining when to use each.

b. Two of the customers who received positive confirmations never replied, even to a second request. What "alternative procedures" could you use to verify the existence of these accounts and the gross value of the receivables?

EXHIBIT 9–9 POSITIVE CONFIRMATION LETTER

D-2.3

KINGSTON COMPANY
Kingston, Ontario

January 5, 2003

Charley Company
Lake and Adams
Chicago, Illinois

Gentlemen:

Our auditors, Anderson, Olds & Watershed, are making their regular audit of our financial statements. Part of this audit includes direct verification of customer balances.

PLEASE EXAMINE THE DATA BELOW CAREFULLY AND EITHER CONFIRM ITS ACCURACY OR REPORT ANY DIFFERENCES DIRECTLY TO OUR AUDITORS USING THE ENCLOSED REPLY ENVELOPE.

This is not a request for payment. Please do not send your remittance to our auditors.

Your prompt attention to this confirmation request will be appreciated.

Sandra Carboy
Sandra Carboy, Controller

The balance due Kingston Company as of December 31, 2002, is $1,906. This balance is correct except as noted below:

It's correct. Will send payment as soon as possible

Date: Jan. 7, 2003 By: P. "Charley" O'Quirk

Title: President

EXHIBIT 9–10 NEGATIVE CONFIRMATION LETTER

KINGSTON COMPANY
Kingston, Ontario

January 5, 2003

Charley Company
Lake and Adams
Chicago, Illinois

Gentlemen:

Our auditors, Anderson, Olds & Watershed, are making their regular audit of our financial statements. Part of this audit includes direct verification of customer balances.

PLEASE EXAMINE THE DATA BELOW CAREFULLY AND COMPARE THEM TO YOUR RECORDS OF YOUR ACCOUNT WITH US. <u>IF OUR INFORMATION IS NOT IN AGREEMENT WITH YOUR RECORDS, PLEASE STATE ANY DIFFERENCES ON THE REVERSE SIDE OF THIS PAGE, AND RETURN DIRECTLY TO OUR AUDITORS IN THE RETURN ENVELOPE PROVIDED.</u> IF THE INFORMATION IS CORRECT, NO REPLY IS NECESSARY.

This is not a request for payment. Please do not send your remittance to our auditors.

Your prompt attention to this confirmation request will be appreciated.

Sandra Carboy

Sandra Carboy, Controller

As of December 31, 2002, balance due to Kingston Company: $1,906
Date of Origination: November and December, 2002
Type: Open trade account

EXHIBIT 9–11 BANK RECONCILIATION

KINGSTON COMPANY

C-2 BANK RECONCILIATION–NORTH COUNTRY BANK Prepared J.D. 1/10/03

General Account Reviewed JRA 1/10/03

12/31/02

(Prepared by client)

Balance per bank statement				506,100 c	
Add:					
Deposit in transit as of 12/31/02				51,240 n	
Deduct outstanding checks:				557,340	
Date	No.	Payee			
12/10/01	842	Ace Supply Company	500 ✗		
11/31/02	1280	Ace Supply Company	1,800 ✓		
12/15/02	1372	Northwest Lumber Co.	30,760 ✓		
12/28/02	1412	Gibson & Johnson	7,270 ✗		
12/30/02	1417	North Country payroll	20,000 ✓		
12/30/02	1418	Ace Supply Company	2,820 ✓		
12/30/02	1419	Windy City Utilities	2,030 ✓		
12/30/02	1420	Howard Hardware Supply	8,160 ✓		
Balance per book				73,340	
				484,000 f	

Note: Obtained cutoff bank statement 1/9/03 C-23 T/B-1

f Footed

c Confirmed by bank, standard bank confirmation C-22

n Vouched to cutoff bank statement, deposit recorded by bank on 1/3/02. Vouched to duplicate deposit slip validaged 1/3/03

✓ Vouched to paid check cleared with cutoff bank statement.

✗ Vouched to statement from attorneys.

✗ Amount in dispute per controller.

KINGSTON COMPANY

Note from the Authors

The following problems are concerned with errors, procedures, searches and adjustments—just some of the risky matters to be examined by the auditor at work.

10.26 Purchase Control Objectives Related to Possible Errors and Test of Controls Audit Procedures. Each of the seven control objectives could be stated in the negative; for example, authorization: "Unauthorized transactions should not be recorded." Viewed in this way, you can see that a "deviation" from a client control procedure could exist if Kingston personnel recorded an unauthorized transaction. Thus, each category of control objectives also has a related "deviation" that can result from (1) failure of the client to install adequate control procedures or (2) failure of client's personnel to perform specified procedures.

The audit manager does not think the audit has given enough attention to the possible errors or irregularities that could occur in the purchases processing and, therefore, the control risk over purchase transactions has been assessed too low. He directs you to prepare a workpaper listing the major errors that could occur in the purchasing system and to describe the test of controls procedures for auditing related purchasing controls to determine whether reliable controls exist.

Required:

For each of the objectives listed in the evaluation table of control objectives and control examples for purchases (Exhibit 10–2):

a. Reword the objectives in the negative to identify "deviations."

b. For each objective indicate the monetary error that could occur in the accounts if the client did not have control procedures to accomplish the objective.

c. For each objective, indicate at least one test of controls audit procedure that could reveal deviations from the client's controls (listed as examples in Exhibit 10–2). See Exhibit 10–3 for examples of test of controls audit procedures for obtaining evidence about purchase controls.

10.27 Kingston Company: Search for Unrecorded Liabilities. Dalton Wardlaw, the engagement partner, has reviewed the audit working papers completed thus far. He is very upset over the search for unrecorded liabilities and is quite sure there are more. You are directed to re-examine all vouchers and cash disbursements that were recorded with a date after December 31. Further, you are to examine documents in the open purchase order file, the unmatched receiving report file and the unmatched invoice file (a procedure omitted in the initial search audit procedures). You found the following information:

1. In the open invoice file, you found an invoice from Bass Hardware Company, dated December 30, for $5,000. However, no receiving report could be located in the unmatched receiving reports file. You located the related purchase order in the open receiving reports file. Later, on January 6, the goods were received with bill of lading showing a January 3 shipping date.

2. An examination of the cheque register and the vouchers payable journal uncovered the following:

a. The cheque register indicated that the utilities were paid on January 10, for $2,100. Locating the appropriate voucher revealed that the voucher also was dated January 10, and this was for December electricity consumed.

b. A voucher was entered in the vouchers payable journal January 2, for $57,000 for an inventory purchase. The open voucher and the supporting documents indicate the goods had been shipped in December and were received January 2, FOB destination (when title passed to Kingston).

c. Another voucher entry on January 2 was for an inventory purchase of $75,000. There was a receiving report dated December 31. Upon enquiring of the accounts payable clerk about this, he indicated that the office party was held the afternoon of the 31st and that the receiving report was probably not forwarded until the next working day.

d. A third voucher entry on January 2 was for rent of $5,000. The cheque date column indicated that it was paid on January 2. Locating the paid voucher indicated that the rent was the monthly rent, paid in advance.

e. A review of the bank confirmation and the interest expense accounts showed that interest on the bank loan had not been accrued.

Required:

Prepare a working paper list of the unrecorded liabilities. Prepare a recommended adjusting entry if one is necessary.

10.28 Kingston Company: Inventory Cutoff and Adjustment. In your audit of the Kingston Company's inventory, you find the following information:

1. Lumber costing $57,000 was received on January 3, and the related purchase invoice was recorded January 5. The invoice shows that the shipment was made from Northwest Lumber Company on December 29, "FOB Kingston Company, Kingston." Shipping costs of $200 were paid by Kingston.
2. Hardware costing $6,000 was received on December 28, and the invoice was not recorded. You locate the invoice in the hands of the purchasing agent; it is marked "on consignment."
3. A packing case containing hardware costing $10,000 was standing in the shipping room when the physical inventory was taken. It was not included in the inventory because it was marked "Hold for shipping instructions." Your investigation reveals that the customer's order was dated December 18, but the case was shipped and the customer was billed on January 10. The hardware was a stock item of Kingston.
4. Lumber received from Southern Lumber Company on January 6 costing $3,000 was entered in the vouchers payable journal on January 7. The invoice shows that the lumber was shipped December 31, "FOB Eastern Lumber Company, Aylmer." Kingston paid rail shipping charges of $500. Since it was not on hand December 31, it was not included in the inventory.
5. A lot of walnut lumber special ordered for a customer (walnut lumber is not normally carried in inventory by Kingston) was on the shipping dock on December 31. The purchase had been recorded. The customer was billed for $4,500 on that date, and the lumber was excluded from inventory, although it was shipped on January 4.
6. A stack of lumber was found to be warped and looked very old. Further investigation reveals that this lumber could not be sold at the original price but might be sold as scrap for an estimated 20 to 40 percent of cost. Perpetual inventory records indicate this stack of lumber is carried at a cost of $20,000.

Required:

Assume that each of the amounts is material:

a. State whether the merchandise should be included in the client's inventory and at what value.
b. Give your reasons for your decision on each item in (*a*) above.
c. Prepare a recommended adjusting journal entry.

10.29 Kingston Company: Inventory Test Count. Assume you were present to observe the physical count of Kingston Company's lumber (other members of the staff observed the count of the hardware). You put the results on your test counts on a spreadsheet working paper similar to that illustrated in Exhibit 10.29–1. However, you have not added the tick marks, nor have you written a memo describing your observation procedures. (Your instructor can give you a form.) The audit program procedures for the observation of the inventory-taking are in the box on the next page.

Required:

a. Complete the worksheet presented in Exhibit 10.29–1. Assume you have completed the procedures. Indicate that you have completed these procedures with appropriate tick marks and tick mark explanations at the bottom of the worksheet.
b. Some of the procedures are not appropriate for entering on the working paper, such as the last shipments and purchases and those that relate to observations. Assume the information for sheets (*g*) and (*h*) were recorded on other working papers (references F-4-3 and F-4-4). Prepare a memo describing the procedures you followed in the observation of Kingston's count of lumber, referring to your workpapers by reference number where appropriate.

10.30 Kingston Company: Property, Plant, and Equipment—Adjustments. Kingston Company moved into new quarters and acquired substantial new equipment on July 1, 2002. Previously, the company had rented a building. The cost of the new building is recorded in the Buildings account (#123), $300,000, and the equipment in the Equipment account (#125), $600,000. The company also acquired the land for $100,000 (account #129). In your audit of these accounts, you find the following material items:

EXHIBIT 10.29–1 TEST COUNT WORKING PAPER

F-2.5
pg 1 of 12

KINGSTON COMPANY
Inventory Test Counts
December 31, 2002

Prepared ________
Date ________
Reviewed ________
Date ________

Tag number	Code	Description	Unit Measure	Client Quantity	Audit Quantity	Comments
87001	11530	1 × 4 6' #3 pine	unit	12500	12500	
87004	11636	1 × 4 12' #3 pine	unit	6500	6500	
87008	11782	1 × 6 8' #3 pine	unit	10335	10435	Client recounted and changed tag.
87015	12128	1 × 8 #3 pine	unit	5750	5750	200 aged and warped.
87501	51583	8d Gal. Nails	50lb. box	1250	1250	
87515	51230	36" Fence Fabric	50' roll	250	250	
87532	51331	6' T-Post	units	552	555	Client to change tag to correct count.

1. Commissions of $7,310 were paid to real estate agents to acquire the land. These commissions were expensed (Miscellaneous expense, account #525) and are excluded from Land.

2. Clearing costs of $5,000 were incurred to make the land ready for construction. These costs were included in the $100,000 Land cost.

3. A group of machines was purchased for $25,000 to cut lumber to sizes desired by customers and to do other limited processing work. The cost of the machines, freight cost, unloading charges and setup and adjustment costs were capitalized and are included in the Equipment account.

4. Kingston borrowed $750,000 with an 11 percent note to finance the acquisition of the assets. The interest on this loan was not included in the Building account.

5. Using materials from Kingston's inventory, Kingston employees took three months to build a major part of the yard sheds where lumber is stored. The direct labour and material costs of $15,000 are included in the Building account.

6. Some of the old equipment used in the former leased space had to be relocated to the new building. During the moving process, many pieces of equipment were overhauled to extend their use-

INVENTORY OBSERVATION PROCEDURES

a. Observe the Kingston manager giving instructions to the count teams and compare the oral instructions to the planned instructions in the memo in the planning working paper file.

b. Observe each team counting and recording the count on prenumbered tags.

c. Recount numerous counts made by each team and compare your count to theirs, noting especially the proper description and measurement on the tags.

d. Record a sample of your test counts (working paper provided).

e. Record the inclusive numbers of the tags filled in. All other numbered tags should be blank when the count is completed (assume 87001-87532).

f. Trace the test counts into Kingston's final inventory compilation.

g. Record the last several shipments made (bill of lading information) and the last several purchases received (receiving report information). Note any lumber in the shipping or receiving area that is not counted by Kingston.

h. Record any lots of lumber that appear to be unsalable due to poor condition.

ful life. The $23,000 cost of this overhaul and reconditioning was charged to the Repairs and Maintenance account (#523).

Required:

a. Describe (summarize) the generally accepted accounting principles that determine what should be capitalized when new facilities are acquired or constructed.

b. Indicate whether each of the above items numbered 1 to 6 requires one or more audit adjustments or reclassifications, and explain why such adjustments or reclassifications are required or not required. Organize your answer to part (*b*) as follows:

Item Number	Is Audit Adjustment or Reclassification Required?	Reasons Why Audit Adjustment or Reclassification Is Required or Is Not Required
	Yes or No	

Kingston Case Assignments

11.38 Kingston Company: Payroll Flowchart. The audit manager wants you to prepare a flowchart of the manual payroll system in use for the first part of the year under audit. As you prepare the flowchart, she wants you to enter the circled S- and W-symbols for strengths and weaknesses, as was done in the flowchart in Exhibit 6–11 in Chapter 6.

You have been able to determine the following Kingston personnel and payroll procedures from interviews and from reading Kingston's accounting procedures manual:

1. All hourly employees (clerical and warehouse personnel) are paid biweekly based on hours recorded on time cards maintained by a time clock machine. The time cards are approved by the supervisors. The supervisors take the approved time cards to the payroll department. Salaried employees also are paid biweekly based on a salary schedule approved by the finance committee of the board of directors.

2. The personnel department must approve all new hires, terminations and hourly rate changes. Forms for each of these actions also are approved by appropriate supervisors and are kept in the personnel office. The personnel clerks notify payroll of the changes by a "payroll change" document.

3. The payroll department maintains the individual employees' payroll records and the forms signed by employees for all pay deductions.

4. Every two weeks, Martha, a clerk in the payroll department, prepares the payroll register (multicopy) from the time cards and the information in the individual payroll records. Martha uses a "write-it-once" system that also prepares a form indicating gross pay, each deduction, net pay and year-to-date totals. Martha calls this form the "take-home sheet." Willie, a second clerk, checks Martha's work and recalculates the gross pay and all deductions.

5. Two copies of payroll register and the take-home sheets are sent to the accounts payable department, where they are used to prepare a separate voucher for each payroll take-home sheet. The cheques then are prepared. (There is no separate payroll bank account.) Both copies of the payroll register, the voucher, the cheques and the accompanying take-home sheets are sent to the treasurer's office.

6. Mila Davila, the treasurer, reviews the payroll register and the take-home sheets and compares them to the cheques and signs the cheques. Her secretary takes the hourly employees' cheques (and accompanying take-home sheets) to their supervisor for distribution. The salaried employees pick up their cheques from the treasurer's office. One copy of the payroll register representing paid cheques is filed in the treasurer's office. The second copy and the vouchers are marked paid and returned to accounts payable.

7. The supervisors distribute the cheques, holding those not claimed until the employee returns to work.

Required:

a. Prepare the flowchart of the flow of transactions and documents for the Kingston Company. Indicate on the flowchart the strengths (with a circle and the strength number, e.g., S-1) and the weaknesses (with a circle and the weakness number, e.g., W-1).

b. Make a list of any other information you wish you had collected relating to Kingston's payroll procedures.

11.39 Kingston Company: Payroll Bridge Working Paper. The flowchart prepared in 11.38 above is incomplete without a bridge working paper similar to the one illustrated in Chapter 6 (Exhibit 6–12).

Required:

Prepare a bridge working paper describing the strengths and weaknesses identified by number on the payroll flowchart. For each strength, describe at least one test of controls audit procedure that may be used to gather evidence on the control. For each weakness indicate the effect on year-end substantive audit procedures. (You will find some of the test of controls audit procedures in Exhibit 11–8 helpful.)

12.26 Kingston Company: Long-Term Liabilities and Owners' Equity Adjustments. In your audit of the long-term liabilities and owners' equity, you discovered the following items:

1. The 11 percent bank loan of $750,000 was obtained July 1 of the year under audit (2002). Interest is payable annually on each June 30. No interest was accrued as of December 31.
2. The $400,000 in notes payable represents the balance of the $600,000 borrowed in January 2001, to finance the new building, which was mortgaged to the noteholders. The original agreement that accompanied the notes provides for interest at 10 percent paid annually each January and a $200,000 annual payment to a bank trustee each year to retire the notes.
   The $200,000 was paid on time (January 2002), as was the interest payment. On examination of the interest expense account, you find a balance of $40,000, representing the accrual for 2002.
3. Your review of the minutes of the board of directors for the January 2003 meetings reveals that dividends of $50,000 had been declared to be distributed to shareholders of record on December 31, 2002, to be paid February 15.
4. The January board minutes also include a discussion of the opportunity to purchase another lumber company in Sudbury, Ontario. The board authorized Julian Greene to deposit $100,000 in an escrow bank account to hold the offer until the board has more information.

EXHIBIT 12.27–1 NOTES PAYABLE AND INTEREST EXPENSE

M-2

KINGSTON COMPANY
NOTES PAYABLE AND INTEREST EXPENSE
December 31, 2002

Prepared ________
Date ________
Reviewed ________
Date ________

	First National Bank	Mutual Insurance Co.	Liability Total	a/c/527 Interest Expense
Balance 12-31-01:				
10% Long-term note due 2004		600,000	600,000	
Additions:				
11% note dated 7-1-02 unsecured, due 6-30-03	750,000		750,000	
Repayments:				
1-1-02		(200,000)	(200,000)	
Balance 12-31-02	750,000	400,000	1,150,000	

α Per prior year's working papers.
c Obtained Bank Confirmation. See C-2.1
R Recalculated interest expense.
u Vouched to cancelled cheque.
✗ Traced to BOD authorization. PF-10.
✓ Vouched to bank transfer notice and bank statement.
χ Kingston neither paid nor accrued this interest expense.
T/B Traced to general ledger.

Required:

a. Prepare adjusting and reclassification entries to propose to Kingston management based on the information above. Be sure to include a sufficient explanation of each entry you propose.

b. Describe the disclosure you would suggest for the items listed above.

12.27 Kingston Company: Notes Payable and Interest Working Paper. Exhibit 12.27–1 is a working paper prepared by the client for the company's notes payable and interest expense. It has been given to you for your information. This is part of the help the client's personnel provide in connection with the audit.

Required:

Make a copy of Exhibit 12.27–1. Using the tick marks shown at the bottom of the working paper, indicate alongside the data in the working paper the work you will perform as an auditor. Complete the working paper for the audit files. Assume that you performed the work on January 26, 2003, and that it was reviewed by T. Townsend on January 30, 2003.

Kingston Case Assignments

Here are three assignments on client representation letters, subsequent events and financial statement adjustment with report preparation.

14.24 Kingston Company: Client's Rep Letter. Based on the audit program, there are still two major areas to complete: the client's rep letter and the search for subsequent events. You decide to draft a proposed client rep letter to be prepared on Kingston's letterhead stationery for the partner in charge, Dalton Wardlaw, to review when he returns.

Required:
Prepare a proposed client representation letter to be sent to Anderson, Olds & Watershed from Kingston's CEO and CFO. Include all the required items and any additional points you think are necessary based on the following:

1. There were no irregularities or violations of laws by either management or employees.
2. There are several legal cases pending, which are covered in the lawyer's letter that has been received.
3. There are several subsequent events that the client had disclosed to you (see Assignment 14.25).
4. There are no share capital repurchase options, compensating balances or agreements to repurchase assets previously sold.

14.25 Kingston Company: Subsequent Events. In connection with your audit of the financial statements of Kingston Company, management revealed the following items:

1. You learned in January of a $25,000 loan to Kingston from Mr. Grace, the vice president of finance. The loan was made on July 15, and the funds were obtained by him with a loan on his personal life insurance policy. The loan was recorded in the account notes payable. Kingston pays the premiums on the life insurance policy, and Mrs. Grace is the owner and beneficiary of the policy. Kingston repaid Mr. Grace on December 29, 2002, and Mr. Grace loaned the $25,000 back to Kingston on January 12, 2003.
2. As a result of reduced sales, the lumberyard activity was curtailed in mid-January and some workers were laid off. On February 5 all the remaining workers went on strike. To date the strike is unsettled.
3. An opportunity to purchase another lumber company, Willie's Woods, came to Kingston's attention. The board of directors authorized Mr. Grace to put $100,000 in an escrow account as earnest money to hold the deal until it is investigated further.
4. The content of a shipment of pine lumber en route on December 31 was determined to be number 1 pine. The shipment was recorded at year-end as number 2 pine in the amount of $23,600. The final liability to the vendor is based on the actual grade of pine, and in this case the vendor billed Kingston for $29,000.

Required:

a. Prepare an explanation for your staff, of the reasons subsequent events must be disclosed in the financial statements even though they occurred after the balance sheet date. Include in your explanation the difference between the disclosure of Type I and Type II subsequent events.

b. Give the audit procedures, in addition to verbal enquiry and the client's rep letter, that should be performed as part of the subsequent event audit work.

c. Discuss the accounting and/or disclosure, if any, you would recommend for the items listed above, stating all details that should be disclosed.

14.26 Kingston Company: Adjusting Journal Entries and Standard Unqualified Report. You need to propose the adjustments to the financial statements you believe necessary for you (Dalton Wardlaw, partner in the CA firm of Anderson, Olds & Watershed) to give the standard unqualified report on the Kingston Company financial statements. This report is to cover only the balance sheet for the year ended December 31, 2002, and the statements of results of operations, retained earnings and cash flows for the one year then ended. The unaudited trial balance is in Exhibit 4.23–1 (Chapter 4).

1. In previous chapters you have worked on the audit of various account balances. Your instructor will give you directions about using the results of your work here to develop proposed adjustments. Some instructors may wish to direct you to use your previous results along with some hypothetical results from part 2, below. In this case students' "answers" may differ.
2. Without prejudice to your findings when working on Kingston assignments in other chapters, and disregarding the subsequent event information in assignment 14.25, you may assume the audit evidence showed the following:
   a. When auditing the bank reconciliation, you found that cheques dated in December totalling $51,040 in payment of trade accounts payable were held until January 6, 2003, when they were mailed to creditors.
   b. The audit of accounts receivable showed pricing and math errors in the total amount of $12,000 overstatement of receivables and sales. Apart from this amount, the allowance for doubtful accounts was considered large enough.
   c. The audit of inventory revealed that some hardware costing $20,000 was found to be obsolete or damaged, with scrap value estimated anywhere from 20 percent to 40 percent of cost. The audit also revealed an unshipped customer hardware order (cost of $10,000) excluded from the December 31 inventory count and compilation, even though the customer was billed $16,000 in January. Also, a lumber shipment in transit ($3,000 cost, plus $500 shipping charges) was excluded from December 31 inventory even though title passed to Kingston before it was received in January.
   d. The search of unrecorded liabilities revealed other unrecorded inventory purchases and unrecorded accounts payable of $75,000. These goods were in transit on December 31 and were not included in the inventory shown in the control account on December 31. Also, a December utility bill for $2,100 was not recorded until it was paid in January.
   e. The 11 percent bank loan of $750,000 was obtained on July 1, 2002. Interest payable June 30, 2003, was not accrued as of December 31.
   f. $200,000 of the long-term debt is due January 1, 2003.
   g. Dividends of $50,000 were declared on December 31, payable on February 15, to shareholders of record December 31.
   h. Buildings costing $300,000 and equipment costing $600,000 were placed in service on July 1, 2002. Amortization at the annual rates of 4 percent for the buildings and 10 percent for the equipment was not calculated and entered in the accounts. Also, costs of $7,310 that should have been capitalized as land cost was charged to miscellaneous expense, and $23,000 spent to overhaul and recondition some equipment on July 1, 2002, was charged to the repairs and maintenance expense.
   i. Use an income tax rate of 40 percent for all income. The tax return and financial statement income are identical, so there are no deferred or prepaid income taxes resulting from timing differences. The trial balance shows no income taxes payable because Kingston paid the entire estimated amount before December 31.

Required:

a. Prepare a scoresheet working paper for the proposed adjusting journal entries (see Exhibit 14–9).

b. Prepare the balance sheet as of December 31, 2002, and the income statement for the year then ended.

c. Prepare a cash flow statement for the year ended December 31, 2002. (Use the comparative trial balance in Exhibit 4.23–1.)

d. Prepare an audit report to go with the financial statements. (Pretend that all the note disclosures are adequate.)

EXHIBIT 14–10 **MANAGEMENT LETTER**

Anderson, Olds & Watershed
Chartered Accountants
Toronto, Ontario
April 1, 2002

Mr. Larry Lancaster, Chairman
Kingston Company
Kingston, Ontario

Dear Mr. Lancaster:

During our audit of the Kingston Company financial statements for the year ended December 31, 2002, we observed certain matters we believe should be brought to your attention. Our audit work was not designed to be a study of the overall efficiency and economy of the management and operation of Kingston Company, but ordinary audit procedures nevertheless enabled us to notice some actions that could enhance the profitability of the Company.

Summary

When we audited the physical inventory and compared the quantities actually on hand to the quantities shown in the perpetual inventory records, we noted several shortages. Follow-up with your warehouse personnel revealed that the "shortages" were usually in the assembly department, where numerous items of custom lawn maintenance equipment were being assembled for customers prior to delivery. The removal of the inventory from the records was routinely entered when the assembled equipment was delivered. These procedures eventually maintained the records accurately, but the delay in posting the inventory records has resulted in lost sales and some customer dissatisfaction with the custom-assembly service.

The Problem

The warehouse personnel remove parts according to the specification of custom-assembly work orders, moving the parts to the assembly area. If another customer orders these parts soon thereafter, the inventory records show them on hand, and the new customer is told that the order can be filled. Shortly thereafter, warehouse personnel find that the parts are actually not on hand, and the customer is disappointed when informed of a delay. Sales department personnel confirmed that several (20–25 during the last six months) withdrew their orders and bought the parts from a competitor. They estimated that approximately $25,000 was lost in sales during the last six months, amounting to about $9,000 in lost profits.

Custom-Assembly Losses

The inventory "shortages," noticed by warehouse personnel when they try to fill new orders, cause another difficulty. People spend extra time looking around for the parts, and usually their enquiries reach the assembly area, where workers leave their jobs unfinished while trying to help locate the "missing" parts. This helpfulness causes assembly jobs to be delayed, customers get dissatisfied, and, in one case, a customer refused to pay because of late delivery. This one case resulted in lost profits of $10,000 because the equipment had to be disassembled and returned to the inventory.

Recommendation

We discussed the following recommendation with Mr. James Worthy in the warehouse, and he agrees that it can be a practical solution. We recommend that you design a form for "Work in Progress," which will be used to make accounting and inventory entries to remove parts from the main inventory as soon as they are transferred to the assembly area. At that stage, the cost would be classified as "work in progress," which will be entered in cost of goods sold as soon as the assembly is completed and the goods are delivered. Judging from our limited knowledge of the extent of the problem during the year under audit, we estimate that you might produce $20,000–$30,000 additional profit per year, while development and use of the form should cost about $3,000.

Conclusion

AO&W has expertise in system development and operation in our management services department, and we will be happy to assist you in reviewing a new form and a systems plan for your implementation. If you wish to discuss this matter further, please inform Mr. Dalton Wardlaw.

Very truly yours,

Anderson, Olds & Watershed

KINGSTON COMPANY

This portion of the Kingston Company case expands the problem requirements in Chapter 7 to include statistical calculations for test of controls auditing. The auditors, Jack and Fred, are planning the audit of some of the controls related to accounting for sales charged to customers' accounts receivable. The purpose of the work is to evaluate control risk to help set the stage for the sample-based audit of the accounts receivable. The assessment of control risk is important because it will influence the sample size for the audit of the customer accounts receivable balances.

You have written an audit program for part of the test of controls auditing (Problem 7.26; refer to the first procedure in the audit program in Chapter 7 if you did not prepare a program for 7.26). You have also defined deviations related to the recorded sales (Problem 7.27; refer to the deviations listed in Problem 7.47 if you did not list them for 7.27).

Kingston Case Assignments

20.44 Determine a Test of Controls Sample Size. The dialogue below contains the information necessary for using the smoke/fire multiplier concept related to tolerable deviation rate (TDR) determination and Roberts's method for calculating the risk of assessing control risk too low (RACRTL). These are used to figure sample sizes and costs. Essentially Roberts's method is a way to systematically minimize the combined costs of testing of controls and the related substance testing of details by adding up various combinations of costs of controls testing to the related substantive testing costs.

There are two separate sets of requirements: (1) the basic analysis uses certain information from the dialogue to formulate a plan and (2) the alternative analysis uses other variables that indicate differences of judgment. One or both of the sets can be assigned. The alternative set facilitates a demonstration of the differences in outcomes created by different judgments. In both sets the requirements are in the order of the stages of analysis. They can be assigned separately or all together.

Planning Dialogue

Fred: We need to plan the audit of the accounts receivable balance. Depending on our assessment of control risk, we could audit anywhere from 51 to 143 customer balances. I prepared a schedule similar to Exhibit 20–2.

Jack: That's a big difference.

Fred: Yes, it is. And each customer account will cost about $8 in billable audit time to complete. Should we try to assess control risk at 0.10 and justify auditing the smallest sample of customer accounts?

Jack: That depends. Ten thousand sales invoices were processed during the year ended December 31, starting with number 32071 and ending with number 42070. Last year the audit team assessed control risk high and audited a large sample of customer accounts.

Fred: That's interesting. By my estimate, we could audit the sales transactions for compliance with control procedures fairly quickly. It would cost only about $3 each to do a test of controls. We have already tested the controls over cash receipts and decided that the control risk is low.

Jack: Yes, but if we make a mistake assessing control risk too low, we might audit too few customer accounts and unknowingly have a risk of incorrect acceptance larger than we planned.

Fred: I don't think we would get in any trouble if we accepted only 0.01 additional risk from that kind of mistake.

Jack: Gee, Fred, I thought you were liberal. I was going to say we can afford to have another 0.02 risk of incorrect acceptance.

Fred: I voted PC, just like you! Anyway, we need to figure out a tolerable deviation rate for the detail test of controls over the accounting for the sales transactions. I think as much as

$85,000 of the $8.5 million in sales could be exposed to control deviation and not cause the accounts receivable to contain material error.

Jack: I see where you're coming from. The tolerable misstatement for the accounts receivable audit is $10,000, and you are applying a smoke/fire multiplier of 8.5. But look at it this way: The company already has given allowance for some errors through the sales returns and allowances account to the tune of $400,000, for the year, so I think the multiplier could be as much as 17.

Fred: And you call me liberal!

Jack: Let's assign those new assistant accountants over there to figure this out. Tell them to make a first pass assuming we find no deviations in the test of controls sample.

(1) Required (for basic analysis):

a. Use Fred's smoke/fire multiplier of 8.5 to figure TDR at CR = 0.05; assign TDRs to the other control risk levels of adding one percentage point for each 0.05 increment in the control risk.

b. Use Fred's judgment of an incremental risk of incorrect acceptance of 0.01 for the substantive balance-audit of the accounts receivable to figure the RACRTLs for each control risk level. (Round to two decimal places.)

c. Calculate the test of controls sample sizes (n[c]) for each control risk level.

d. Calculate the total cost of the test of controls sample and the substantive balance-audit sample and determine the size of the test of controls sample to audit.

(2) Required (for alternative analysis):

a. Use Jack's smoke/fire multiplier of 17 to figure TDR at CR = 0.05; assign TDRs to the other control risk levels by adding 1 percentage point for each 0.05 increment in the control risk.

b. Use Jack's judgment of an incremental risk of incorrect acceptance of 0.02 for the substantive balance-audit of the accounts receivable to figure the RACRTLs for each control risk level. (Round to two decimal places.)

c. Calculate the test of controls sample sizes (n[c]) for each control risk level.

d. Calculate the total cost of the test of controls sample and the substantive balance-audit sample and determine the size of the test of controls sample to audit.

e. Assuming you have done requirement set (1), discuss the difference(s) in the audit plan suggested by the alternative analysis.

20.45 Quantitative Evaluation of Control Compliance Evidence. To perform quantitative evaluation of compliance evidence, you need to complete a sampling data sheet. (Make a copy of Exhibit 7.27–1, or obtain one from your instructor.) If you worked problem 7.27, you will already have this data sheet. If not, review problem 7.27 and fill in the client name and the period covered, specify objectives of your work, describe the population to be sampled, and describe the sample selection process. Under the column headed "definition of deviations," write a brief statement of the deviations of interest. (You can find these deviations listed in problem 7.47.) Decide a sample size to audit. Choose one of these sample sizes—30, 60, 80, 90, 120, 160, 220, 240, 260, 300—to facilitate your instructor's presentation of solutions.

Required:

a. In addition to the information for the sampling data sheet described above, enter the statistical information: risk of assessing control risk too low, tolerable rate, and estimated deviation rate. Then enter your sample size. Next, "audit" your sample according to the instructions in problem 7.28, using the simulated data in Exhibit 7.28–1. Record the number of deviations, calculate the sample deviation rate, and calculate the computed upper limit (use the Appendix 20B tables or the Poisson risk factor equation for UEL).

b. Use the computed upper limit information to assign an evaluation to internal control risk related to the probability of sales overstatement errors being in the accounts receivable balances. For this requirement, assume a tolerable deviation rate of 4 percent and a risk of assessing control risk too low of 5 percent.

EXHIBIT 20–4 RANDOM NUMBER TABLE USED AS AUDIT WORKING PAPER

Index ________

Prepared by ________
Reviewed by ________

Kingston Company
Random Selection of Sales Invoices
12/31/92

Population: 10,000 invoices numbered 32701-42070.
Method: unrestricted selection of 5-digit random invoice numbers.
Random Start:

32942	95416	42339	59045	26693	49057	87496	20624	14819
07410	99859	83828	21409	29094	65114	36701	25762	12827
59981	68155	45673	76210	58219	45738	29550	24736	09574
46251	25437	69654	99716	11563	08803	86027	51867	12116
65558	51904	93123	27887	53138	21488	09095	78777	71240
99187	19258	86421	16401	19397	83297	40111	49326	81686
35641	00301	16096	34775	21562	97983	45040	19200	16383
14031	00936	81518	48440	02218	04756	19506	60695	88494
60677	15076	92554	26042	23472	69869	62877	19584	39576
66314	05212	67859	89356	20056	30648	87349	20389	53805
20416	87410	75646	64176	82752	63606	37011	57346	69512
28701	56992	70423	62415	40807	98086	58850	28968	45297
74579	33844	33426	07570	00728	07079	19322	56325	84819
62615	52342	82968	75540	80045	53069	20665	21282	07768
93945	06293	22879	08161	01442	75071	21427	94842	26210
75689	76131	96837	67450	44511	50424	82848	41975	71663
02921	16919	35424	93209	52133	87327	95897	65171	20376
14295	34969	14216	03191	61647	30296	66667	10101	63203
05303	91109	82403	40312	62191	67023	90073	83205	71344
57071	90357	12901	08899	91039	67251	28701	03846	94589
78471	57741	13599	84390	32146	00871	09354	22745	65806
89242	79337	59293	47481	07740	43345	25716	70020	54005
14955	59592	97035	80430	87220	06392	79028	57123	52872
42446	41880	37415	47472	04513	49494	08860	08038	43624
18534	22346	54556	17558	73689	14894	05030	19561	56517

Selection path: down each column to bottom, top next right column, then to top of column at left

Sampling unit selection.

Statistical Sampling: Auditing the Trade Accounts Receivable Balance

The Kingston Company assignments that follow cover both the dollar-unit sampling (DUS) method and the classical sampling method. The assignment headings identify them. The dialogue immediately below provides the basic planning information for both sampling methods. Some of the planning information will be ignored, depending upon the sampling method used in the assignment. (Students will need to be able to identify the relevant information and disregard the irrelevant.)

Jack and Fred, the auditors, are getting ready to audit Kingston's trade accounts receivable.

Jack: Where's the trial balance?

Fred: Here it is. Kingston lists 1,506 customer balances totalling $400,000. The balances range from $1 to $25,000.

Jack: Yesterday, we decided the tolerable misstatement in receivables could be $10,000. That is, we want to audit for sales and receivables overstatement so we won't miss more than $10,000, if that much misstatement is in the account.

Fred: Monetary misstatements are a possibility. Last year, we audited 500 customer accounts selected at random and found $2,000 in overstatement. That computed to a projected likely overstatement of $4,000. We proposed a $3,000 adjustment to the gross receivables, but the partner passed the adjustment when he got the treasurer to agree to increase the allowance for doubtful accounts by $10,000. Even though the total receivables are down $100,000, maybe we ought to play it safe and figure $4,000 misstatement might be in the total. That makes the average misstatement expected about $2.67.

Jack: What was the standard deviation in last year's sample?

Fred: About $40. It was 10 times the average monetary misstatement.

Jack: Mmmmm (*thoughtfully*). Any individually big balances this year?

Fred: Kingston shows six balances over $10,000 for a total of $100,000. We ought to pull them out of the population for complete audit.

Jack: Agreed. No use taking chances.

Fred: Our analytical procedures related to receivables doesn't show much. The total is down, consistent with the sales decline, so the turnover is up a little. If any misstatement is in the receivables total, it may be too small to be obvious in the ratios.

Jack: That's good news if the problems are immaterial. Too bad we can't say analytical procedures reduce our audit risk. What about internal control?

Fred: We were successful in assessing control risk at 0.30 according to the analysis of our minimum cost samples. The company's control procedures seem to be performed well. I call that a low control risk situation. Incidentally, I can't separate the inherent risk assessment from the control risk assessment, so I think we should lump them together for a 0.30 combination.

Jack: According to the audit program, we will confirm a sample of customer accounts, send second requests after a week, then chase down all the nonrespondents by vouching all the charges and credits in the account to supporting documents or vouching to the customers' payments in January. I'm worried about the time it takes and our audit cost of doing these procedures.

Fred: I am, too. The fixed cost of getting confirmations out is the same, no matter whether we send 100 or 1,000. Of course, it costs money to process the returns. I estimate the variable cost per account in the initial sample to be about $8—that's a weighted average of the cost of confirmation and the cost of alternative procedures to chase down the nonrespondents. The cost of handling the nonrespondents is about $19 each, which is the cost we will incur to add to the sample if our first sample is not large enough. We won't have time to send more confirmations, so adding accounts to the sample means we will need to audit them the same way we audit nonrespondents.

Jack: Let's take a chance of needing to add to the sample. If it all works out all right, we'll save a lot of time and meet our time budget for the work. How about a 40 percent risk of incorrect rejection?

Fred: Well, the team took only a 15 percent risk last year. Let's think about it.

(*Later.*)

Fred: Here's the results of the audit of the six largest customer accounts.

Account Number	Balance	Confirmation and Document Examination
109	$12,337	Wrong quantity billed on invoice 042042, December 28. Overcharged $600.
458	12,129	No error.
859	25,000	No error.
863	16,129	Arithmetic error on invoice 42065, December 29. Overcharged $450.
1092	15,005	No error.
1456	19,400	No error.

Kingston Case Assignments

20.69 Kingston Company: Dollar-Unit Sampling Audit of Accounts Receivable. Jack and Fred decided to take a dollar-unit sample of Kingston's account receivable that was not removed for 100 percent audit. They thought about the risk of incorrect rejection but only got headaches for their trouble. They decided to use the Poisson risk factor method for determining the DUS sample size.

They audited the sample and discovered the errors in Exhibit 20.69–1. In the column headings: "Wrong Quant'y" means that Kingston billed the customer for more units than were actually shipped according to the shipping documents, "Wrong Math" means a computational error was made on the invoice, and "Wrong Date" means that the sale was recorded in the year under audit (1992) but the goods were not shipped until January the next year.

Required:

a. Derive the risk of incorrect acceptance from the information in the auditors' dialogue.

b. Decide how many errors to estimate for using the Poisson risk factor method calculation of the DUS sample size. Assume that you audit this sample size.

EXHIBIT 20.69–1 ERRORS DISCOVERED IN THE SAMPLE OF ACCOUNTS RECEIVABLE

Acct #	Book Balance	Wrong Quant'y	Wrong Math	Wrong Date	Audited Amount
25	$ 503			$115	$ 388
366	$ 492			112	$ 380
465	$ 507	$136			$ 371
623	$ 195	$ 63			$ 132
741*	$3,698		$100		$3,598
741*	$3,698		$100		$3,598
774	$ 517			$140	$ 377
1206	$ 524			$119	$ 405
1352	$ 700			$400	$ 300
1466	$ 351			$ 59	$ 292

*Selected twice for two dollar units.

EXHIBIT 20.70–1 ASSUMED ACCOUNTS RECEIVABLE DUS CALCULATIONS

Type of Error	Known Error	Projected Likely Error	Upper Error Limit
Wrong quantity:			
Six large accounts	$ 600		
Sampled accounts	199	$1,848	$ 8,091
Wrong arithmetic			
Six large accounts	450		
Sampled accounts	100	168	5,763
Wrong date:			
Sampled accounts	945	5,292	12,486
All error:			
Six large accounts	1,052		
Sampled accounts	1,244	7,308	14,897

c. Calculate the projected likely error and the upper error limit based on the errors in the sample (Exhibit 20.69–1).

d. Decide whether to "accept" the recorded amount without adjustment or to "reject" the recorded amount as an accurate balance with respect to the tolerable misstatement the auditors will allow.

20.70 Kingston Company: Determine the Amount of a Recommended Adjustment—Dollar-Unit Sampling. Assume that you have audited the Kingston Company accounts receivable and have reached a conclusion about the materially accurate presentation of the $400,000 recorded amount.

Required:

Using your results from your sample in assignment 20.70, prepare a proposed adjusting journal entry. (Hint: When you reviewed the Kingston unaudited financial statements, you found that the company was reporting cost of goods sold at 65 percent of sales dollars.)

Alternative:

Without regard to your sample results in assignment 20.70, assume you calculated the DUS results in Exhibit 20.70–1 from the audit of the accounts receivable. All the error amounts are accounts receivable overstatements. Prepare a proposed adjusting journal entry. (Hint: When you reviewed the Kingston unaudited financial statements, you found that the company was reporting cost of goods sold at 65 percent of sales dollars.)