CHAPTER 18

Revenue Recognition

ASSIGNMENT CLASSIFICATION TABLE (BY TOPIC)

Topics	Questions	Brief Exercises	Exercises	Problems	Concepts for Analysis
1. Current Environment; 5-Step Model.	1, 2, 3, 4, 5, 6			8	1, 2, 3
2. Contracts; Contract modifications.	7, 9	1, 3	1, 2, 3, 4, 17, 18	1, 2	1
3. Performance Obligations	10, 11, 12	3, 4, 19, 20			
4. Transaction Price	8, 13		5, 8, 9	4, 5	1
5. Variable Consideration; Time value; Non-Cash consideration, consideration paid to customer	8, 14, 15, 16, 17, 18,	5, 6, 7, 8, 9, 10	6, 7	3, 4, 6, 7, 8, 9	5
6. Allocate transaction price to performance obligations.	11, 12, 19, 20	2, 8, 11, 12	5, 8, 9, 10	1, 2, 3, 4, 5	
7. Satisfying Performance Obligations – transfer control: Returns; repurchases; Bill and Hold; Principal-agent; consignments; Warranties; Upfront fees.	5, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30	13, 14, 15, 16, 17, 18, 20	10, 11, 12, 13, 14, 15, 16	1, 2, 3, 5, 6, 7, 8, 9	2, 3, 4, 6, 7
8. Presentation, Contract Costs, Collectibility.	30, 31, 32, 33	19	17, 18, 19, 20		1, 2, 6
*9. Long-Term Contracts	34, 35, 36, 37	21, 22, 23	21, 22, 23, 24, 25	10, 11, 12	8
*10. Franchising.	38	24	26, 27	13	

*This material is dealt with in an Appendix to the chapter.

ASSIGNMENT CLASSIFICATION TABLE (BY LEARNING OBJECTIVE)

Learning Objectives	Brief Exercises	Exercises	Problems
1. Understand revenue recognition issues.			8
2. Identify the five steps in the revenue recognition process.			
3. Identify the contract with customers.	1, 2	1, 2, 3, 4	2
4. Identify the separate performance obligations in the contract.	2, 3, 4	8, 9, 10	8
5. Determine the transaction price.	5, 6, 7, 8, 9, 10	1, 2, 5, 6, 7, 8, 9	1, 2, 3, 4, 8, 9, 10
6. Allocate the transaction price to the separate performance obligations.	11, 12	9, 10, 11, 12, 13	2, 3, 4, 5, 8
7. Recognize revenue when the company satisfies its performance obligation.	12		
8. Identify other revenue recognition issues.	13, 14, 15, 16, 17, 18, 20	14, 15, 16, 17, 18, 19, 20, 21,	1, 5, 6, 7, 8, 9
9. Describe presentation and disclosure regarding revenue.	19	22, 23, 24, 25	
*10. Apply the percentage-of-completion method for long-term contracts.	21	26, 27, 28, 29, 30	10, 11, 12
*11. Apply the cost-recovery method for long-term contracts.	22	26, 29, 30	10, 11, 12
*12. Identify the proper accounting for losses on long-term contracts.	23		11, 12
*13. Explain revenue recognition for franchises.	24	31, 32	13

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ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E18-1	Sales with Discounts.	Simple	5–10
E18-2	Transaction Price.	Moderate	20–25
E18-3	Contract Modification.	Moderate	20–25
E18-4	Contract Modification	Moderate	20–25
E18-5	Variable Consideration	Moderate	15–20
E18-6	Trailing Commission.	Moderate	15–20
E18-7	Sales with Discounts.	Moderate	15–20
E18-8	Sales with Discounts.	Moderate	15–20
E18-9	Allocate Transaction Price	Moderate	25–30
E18-10	Allocate Transaction Price	Simple	5–10
E18-11	Allocate Transaction Price.	Moderate	25–30
E18-12	Allocate Transaction Price.	Moderate	25–30
E18-13	Allocate Transaction Price.	Simple	10–15
E18-14	Sales with Returns.	Simple	5–10
E18-15	Sales with Returns.	Moderate	15–20
E18-16	Sales with Repurchase.	Moderate	20–25
E18-17	Repurchase Agreement	Moderate	10–15
E18-18	Bill and Hold.	Simple	10–15
E18-19	Consignment Sales.	Simple	5–10
E18-20	Warranty Arrangement.	Moderate	10–15
E18-21	Warranties.	Moderate	15–20
E18-22	Existence of a Contract.	Simple	10–15
E18-23	Existence of a Contract.	Simple	10–15
E18-24	Contract Costs.	Simple	10–15
E18-25	Contract Costs, Collectibility.	Moderate	20–25
*E18-26	Recognition of Profit on Long-Term Contracts.	Moderate	20–25
*E18-27	Analysis of Percentage-of-Completion Financial Statements.	Simple	10–15
*E18-28	Gross Profit on Uncompleted Contract.	Simple	10–15
*E18-29	Recognition of Revenue on Long-Term Contract and Entries.	Simple	15–20
*E18-30	Recognition of Profit and Statement of Financial Position Amounts for Long-Term Contracts.	Simple	15–25
*E18-31	Franchise Entries.	Simple	20–25
*E18-32	Franchise fee, Initial down payment.	Simple	15–20
P18-1	Allocate Transaction Price, Upfront Fees.	Moderate	30–35
P18-2	Modification of Contract, Allocate Transaction Price.	Moderate	20–25
P18-3	Allocate Transaction Price, Discounts, Time Value.	Moderate	25–35
P18-4	Allocate Transaction Price, Discounts, Time Value.	Moderate	35–40
P18-5	Allocate Transaction Price, Returns, and Consignments	Moderate	35–40
P18-6	Warranty, Customer Loyalty Program.	Moderate	25–30
P18-7	Customer Loyalty Program.	Moderate	30–35
P18-8	Comprehensive Three-Part Revenue Recognition.	Moderate	30–45

ASSIGNMENT CHARACTERISTICS TABLE (Continued)

Item	Description	Level of Difficulty	Time (minutes)
P18-9	Time Value, Gift Cards, Discounts.	Moderate	30–35
*P18-10	Recognition of Profit on Long-Term Contract.	Complex	30–40
*P18-11	Long-Term Contract with Interim Loss.	Simple	20–25
*P18-12	Long-Term Contract with an Overall Loss.	Complex	40–50
*P18-13	Franchise Revenue.	Moderate	35–45
CA18-1	Five-Step Revenue Process.	Moderate	20–30
CA18-2	Satisfying Performance Obligations.	Moderate	20–30
CA18-3	Recognition of Revenue—Theory.	Moderate	25–30
CA18-4	Recognition of Revenue—Theory.	Moderate	25–30
CA18-5	Discounts	Moderate	20–25
CA18-6	Recognition of Revenue from Subscriptions.	Complex	35–45
*CA18-7	Revenue Recognition—Bonus Points.	Moderate	20–25
*CA18-8	Revenue Recognition—Membership Fees, Ethics.	Moderate	20–25
*CA18-9	Long-term Contract—Percentage-of-Completion.	Moderate	20–25

ANSWERS TO QUESTIONS

1. Most revenue transactions pose few problems for revenue recognition. This is because, in many cases, the transaction is initiated and completed at the same time. However, due to the complexity of some transactions, many believe the revenue recognition process is increasingly complex to manage, more prone to error, and more material to financial statements compared to any other area of financial reporting. As a result, the FASB and IASB have indicated that the present state of reporting for revenue is unsatisfactory and the Boards issued a standard, "Revenue from Contracts with Customers," in 2013. This new standard provides a new approach for how and when companies should report revenue. The standard is comprehensive and applies to all companies. As a result, comparability and consistency in reporting revenue should be enhanced.

2. IFRS lacked guidance in a number of areas because it had only one standard for revenue recognition.

3. The revenue recognition principle indicates that revenue is recognized in the accounting period when a performance obligation is satisfied. That is, a company recognizes revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration that it receives, or expects to receive, in exchange for those goods or services.

4. The five steps in the revenue recognition process are:

1. Identify the contract with customers.
2. Identify the separate performance obligations in the contract.
3. Determine the transaction price.
4. Allocate the transaction price to the separate performance obligations.
5. Recognize revenue when each performance obligation is satisfied.

5. Change in control is the deciding factor in determining when a performance obligation is satisfied. Control is transferred when the customer has the ability to direct the use of and obtain substantially all the remaining benefits from the asset or service. Control is also indicated if the customer has the ability to prevent other companies from directing the use of, or receiving the benefit, from the asset or service.

6. Revenues are recognized generally as follows:

(a) Revenue from selling products—date of delivery to customers.
(b) Revenue from services performed—when the services have been performed (performance obligation satisfied) and are billable.
(c) Revenue from permitting others to use company assets—as time passes or as the assets are used.
(d) Revenue from disposing of assets other than products—at the date of sale.

7. The first step in the revenue recognition process is the identification of a contract or contracts with the customer. A contract is an agreement between two or more parties that creates enforceable rights or obligations. That is, the contract identifies the performance obligations in a revenue arrangement. Contracts can be written, oral, or implied from customary business practice. In some cases, there may be multiple contracts related to the transaction, and accounting for each contract may or may not occur, depending on the circumstances. These situations often develop when not only a product is provided but some type of service is performed as well.

8. No entry is required on October 10, 2015, because neither party has performed on the contract. That is, neither party has an unconditional right as of October 10, 2015. On December 15, 2015, Executor delivers the product and therefore should recognize revenue on that date as it satisfied its performance obligation on that date.

The journal entry to record the sales revenue and related cost of goods sold is as follows.

December 15, 2015

Notes Receivable	5,000	
Cash	5,000	
Sales Revenue		10,000
Cost of Goods Sold	6,500	
Inventory		6,500

9. A contract modification occurs if a company changes the contract terms during the term of the contract. When a contract is modified, the company must determine whether a new performance obligation has occurred or whether it is a modification of the existing performance obligation. If it is a modification of an existing performance obligation, then the change is generally reported prospectively or as a cumulative effect adjustment to revenue, depending on the circumstances. If the modification results in a separate performance obligation, then this performance obligation should be accounted for separately.

10. A performance obligation is a promise in a contract to provide a product or service to a customer. This promise may be explicit, implicit, or possibly based on customary business practice. To determine whether a performance obligation exists, the company must determine whether the customer can benefit from the good or service on its own or together with other readily available resources.

11. To determine whether the company has to account for multiple performance obligations, a company must first provide a distinct good or service on its own or together with other available resources. Once this condition is met, the company next evaluates whether the product or service is distinct within the contract. In other words, if the performance obligation is not highly dependent on, or interrelated with, other promises in the contract, then each performance obligation should be accounted for separately. Conversely if each of these services is interdependent and interrelated, these services are combined and reported as one performance obligation.

12. In this situation, it appears that Engelhart has two performance obligations: (1) one related to providing the tractor and (2) the other related to the GPS services. Both are distinct (they can be sold separately) and are not interdependent.

13. The transaction price is the amount of consideration that a company expects to receive from a customer in exchange for transferring goods and services. The transaction price in a contract is often easily obtained because the customer agrees to pay a fixed amount to the company over a short period of time. In other contracts, companies must consider the following factors (1) Variable consideration, (2) Time value of money, (3) Non-cash consideration, and (4) Consideration paid or payable to customer.

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14. Variable consideration (when the price of a good or service is dependent on future events), includes such elements as discounts, rebates, credits, performance bonuses, or royalties. A company estimates the amount of variable consideration it will receive from the contract to determine the amount of revenue to recognize. Companies use either (1) the expected value, which is a probability weighted amount, or (2) the most likely amount in a range of possible amounts to estimate variable consideration. Companies select among these two methods based on which approach better predicts the amount of consideration to which a company is entitled.

15. The transaction price should include management's estimate of the amount of consideration to which the entity will be entitled. Given the multiple outcomes and probabilities available based on prior experience, the probability-weighted method is the most predictive approach for estimating the variable consideration. In this situation:

25% chance of £421,000 if by February 1 (25% X £421,000)	=	£ 105,250
25% chance of £414,000 if by February 8 (25% X £414,000)	=	103,500
25% chance of £407,000 if by February 15 (25% X £407,000)	=	101,750
25% chance of £400,000 if after February 15 (25% X £400,000)	=	100,000
		£ 410,500

Thus, the total transaction price is £410,500 based on the probability-weighted estimate.

16. Allee should not allocate variable consideration to the performance obligation, unless it is reasonably assured it is entitled to that amount. In this case, it does not have experience with similar contracts and therefore is not able to estimate the cumulative amount of revenue. Allee is constrained in recognizing variable consideration if there might be a significant reversal of revenue previously recognized.

17. In measuring the transaction price, companies make the following adjustment for:

(a) Time value of money - When a sales transaction involves a significant financing component (that is, interest is accrued on consideration to be paid over time), the fair value (transaction price) is determined either by measuring the consideration received or by discounting the payment using an imputed interest rate. The imputed interest rate is the more clearly determinable of either (1) the prevailing rate for a similar instrument of an issuer with a similar credit rating, or (2) a rate of interest that discounts the nominal amount of the instrument to the current sales price of the goods or services. The company will report the effects of the financing either as interest expense or interest revenue.

(b) When non-cash consideration is involved, revenue is generally recognized on the basis of the fair value of what is received. If the fair value cannot be determined, then the company should estimate the selling price of the goods delivered or services performed and recognize this amount as revenue. In addition, companies sometimes receive contributions (donations, gifts). A contribution is often some type of asset (such as securities, land, buildings or use of facilities) but it could be the forgiveness of debt. Similarly, this consideration should be recognized as revenue based on the fair value of the consideration received.

18. Any discounts or volume rebates should reduce consideration received and reduce revenue recognized.

19. If an allocation of the transaction price to various performance obligations is needed, the allocation is based on their relative fair value. The best measure of fair value is what the company could sell the good or service on a standalone basis (referred to as the standalone selling price). If this information is not available, companies should use their best estimate of what the good or service might sell for as a standalone unit. The three approaches for estimating stand-alone selling price are (1) Adjusted market assessment approach; (2) Expected cost plus a margin approach, and (3) Residual approach.

20. Since each element sells separately and has a separate standalone value, the equipment, installation, and training are three separate performance obligations.

The total revenue of $80,000 should be allocated to the three performance obligations based on their relative fair values. Thus, the total estimated fair value is $100,000) ($90,000 + $7,000 + $3,000). The allocation is as follows.

Equipment ($90,000 ÷ $100,000) X $80,000 = $72,000.
Installation ($7,000 ÷ $100,000) X $80,000 = $5,600.
Training ($3,000 ÷ $100,000) X $80,000 = $2,400.

21. A company satisfies its performance obligation when the customer obtains control of the good or service. Indications that the customer has obtained control are:

1. The company has a right to payment for the asset.
2. The company transferred legal title to the asset.
3. The company transferred physical possession of the asset.
4. The customer has the significant risks and rewards of ownership.
5. The customer has accepted the asset.

22. Companies recognize revenue over a period of time if one of the following two criteria is met.

1. The customer controls the asset as it is created or enhanced.
2. The company does not have an alternative use for the asset created or enhanced and either (1) the customer receives benefits as the company performs and therefore, the task would not need to be re-performed, or (2) The company has a right to payment and this right should be enforceable.

23. A company recognizes revenue from a performance obligation over time by measuring the progress toward completion. The method selected for measuring progress should depict the transfer of control from the company to the customer. The most common are the cost-to-cost and units-of-delivery methods. The objective of all these methods is to measure the extent of progress in terms of costs, units, or value added. Companies identify the various measures (costs incurred, labor hours worked, tons produced, floors completed, etc.) and classify them as input or output measures. Input measures (costs incurred, labor hours worked) are efforts devoted to a contract. Output measures (with units of delivery measured as tons produced, floors of a building completed, miles of a highway completed) track results. Neither is universally applicable to all long-term projects. Their use requires the exercise of judgment and careful tailoring to the circumstances. The most popular input measure used to determine the progress toward completion is the cost-to-cost basis. Under this basis, a company measures the percentage of completion by comparing costs incurred to date with the most recent estimate of the total costs required to complete the contract.

24. To account for sales with rights of return, (and for some services that are provided subject to a refund), companies generally recognize all of the following.

a. Revenue for the transferred products in the amount of consideration to which seller is reasonably assured to be entitled (considering the products expected to be returned).
b. A refund liability.
c. An asset (and corresponding adjustment to cost of sales) for its right to recover inventory from the customer.

Thus, at the time of sale, only the revenue not subject to estimated refund is recognized. The remaining revenue is recognized when the refund provision expires.

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25. If a company sells a product in one period and agrees to buy it back in the next period, legal title has transferred, but the economic substance of the transaction is that the seller retains the risks of ownership. When this occurs, the transaction is often a financing arrangement and does not give rise to revenue.

26. Bill-and-hold sales result when the buyer is not yet ready to take delivery but the buyer takes title and accepts billing. Revenue is recognized at the time title passes, if all of the following criteria are met:

(a) The reason for the bill-and-hold arrangement must be substantive.
(b) The product must be identified separately as belonging to the customer.
(c) The product currently must be ready for physical transfer to the customer.
(d) The seller cannot have the ability to use the product or to direct it to another customer.

27. In a principal-agent relationship, amounts collected on behalf of the principal are not revenue of the agent. The revenue for the agent is the amount of the commission it receives (usually a percentage of the selling price).

28. A sale on consignment is the shipment of merchandise from a manufacturer (or wholesaler) to a dealer (or retailer) with title to the goods and the risk of sale being retained by the manufacturer who becomes the consignor. The consignee (dealer) is expected to exercise due diligence in caring for the merchandise and the dealer has full right to return the merchandise. The consignee receives a commission upon the sale and remits the balance of the cash collected to the consignor.

The consignor recognizes a sale and the related revenue upon notification of sale from the consignee and receipt of the cash. The consigned goods are carried in the consignor's inventory, not the consignee's, until sold.

29. The two types of warranties are:

a. Warranties that the product meets agreed-upon specifications in the contract at the time the product is sold. This type of warranty is included in the sale price of company's product and is often referred to as an assurance-type warranties.

b. Warranties that provide an additional service beyond the assurance type warranty. This warranty is not included in the sale price of the product and is referred to as a service-type warranty.

Companies do not record a separate performance obligation for assurance type warranties. These types of warranties are nothing more than a quality guarantee that the good or service is free from defects at the point of sale. These type of obligations should be expensed in the period the goods are provided or services performed (In other words, at the point of sale). In addition, the company should record a warranty liability. The estimated amount of the liability includes all the costs that the company will incur after sale and that are incident to the correction of defects or deficiencies required under the warranty provisions.

Warranties that provide the customer a service beyond fixing defects that existed at the time of sale represent a separate service and are an additional performance obligation. As a result, companies should allocate a portion of the transaction price to this performance obligation. The company recognizes revenue in the period that the service-type warranty is in effect.

30. The total transaction price is HK$420 [HK$300 + (HK$5 X 24)]. That is, Kwon Cellular is providing a service in the second year without receiving an upfront fee. Thus the upfront fee should be recognized as revenue over two periods. As a result, Kwon Cellular recognizes revenue of HK$210 (HK$420 ÷ 2) in both year 1 and year 2.

31. Under the asset-liability model for recognizing revenue, companies recognize assets and liabilities according to the definitions of assets and liabilities in a revenue arrangement. For example, when a company has a right to consideration for meeting a performance obligation, it has a right to consideration from the customer and therefore has a contract asset. A contract liability is a company's obligation to transfer goods or services to a customer for which the company has received consideration from the customer. Thus, if the customer performs first, by prepaying for the product, then the seller has a contract liability. Companies must present these contract assets and contract liabilities on their balance sheet. Contract assets are of two types: (a) Unconditional rights to receive consideration because the company has satisfied its performance obligation with customer, and (b) Conditional rights to receive consideration because the company has satisfied one performance obligation, but must satisfy another performance obligation in the contract before it can bill the customer. Companies should report unconditional rights to receive consideration as a receivable on the balance sheet. Conditional rights on the balance sheet should be reported separately as contract assets.

32. (a) Companies divide fulfillment costs (contract acquisition costs) into two categories: (1) those that give rise to an asset, and (2) those that are expensed as incurred. Companies recognize an asset for the incremental costs, if these costs are incurred to obtain a contract with a customer. In other words, incremental costs are costs that a company would not incur if the contract had not been obtained (for example, selling commissions). Other examples are: (a) Direct labor, direct materials, and allocation of costs that relate directly to the contract (such as costs of contract management and supervision, insurance, and depreciation of tools and equipment), and (b) Costs that generate or enhance resources of the company that will be used in satisfying performance obligations in the future. Costs include intangible design or engineering costs that will continue to benefit in the future. Companies capitalize costs that are direct, incremental, and recoverable (assuming that the contract period is more than one year).

(b) Collectibility – whether a company will get paid for satisfying a performance obligation is not a consideration in determining revenue recognition. That is, the amount recognized is not adjusted for customer credit risk. Rather, companies report the revenue gross and then present an allowance for any impairment due to bad debts (recognized initially and subsequently in accordance with the respective bad debt guidance) prominently as an expense in the income statement. If significant doubt exists at contract inception about collectability, it often indicates that the parties are not committed to their obligations. As a result, conditions for the existence of a contract are not met and therefore revenue is not recognized.

33. Quantitative disclosures include: (a) Contracts with customers – These disclosures include the disaggregation of revenue, presentation of opening and closing balances in contract assets and contract liabilities, and significant information related to its performance obligations; (b) Qualitative disclosures include information on significant judgments. These disclosures include judgments and changes in these judgments that affect the determination of the transaction price, the allocation of the transaction price and the determination of the timing of revenue; (c) Assets recognized from costs incurred to fulfill contract—these disclosures include the closing balances of assets recognized to obtain or fulfill a contract, the amount of amortization recognized and the method used for amortization.

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***34.** The two basic methods of accounting for long-term construction contracts are: (1) the percentage-of-completion method and (2) the cost-recovery method.

The percentage-of-completion method is preferable when estimates of costs to complete and extent of progress toward completion of long-term contracts are reasonably dependable. The percentage-of-completion method should be used in circumstances when **reasonably dependable estimates can be made and:**

(1) The contract clearly specifies the enforceable rights regarding goods or services to be provided and received by the parties, the consideration to be exchanged, and the manner and terms of settlement.
(2) The buyer can be expected to satisfy all obligations under the contract.
(3) The contractor can be expected to perform the contractual obligations.

The cost-recovery method is preferable when the lack of dependable estimates or inherent hazards cause forecasts to be doubtful.

***35.** Under the percentage-of-completion method, income is reported to reflect more accurately the production effort. Income is recognized periodically on the basis of the percentage of the job completed rather than only when the entire job is completed. The principal disadvantage of the cost-recovery method is that it may lead to distortion of earnings because no attempt is made to reflect current performance when the period of the contract extends into more than one accounting period.

***36.** The methods used to determine the extent of progress toward completion are the cost-to-cost method and units-of-delivery method. Costs incurred and labor hours worked are examples of **input measures,** while tons produced, stories of a building completed, and miles of highway completed are examples of **output measures.**

***37.** The two types of losses that can become evident in accounting for long-term contracts are:

(1) A current period loss involved in a contract that, upon completion, is expected to produce a profit.
(2) A loss related to an unprofitable contract.

The first type of loss is actually an adjustment in the current period of gross profit recognized on the contract in prior periods. It arises when, during construction, there is a significant increase in the estimated total contract costs but the increase does not eliminate all profit on the contract. Under the percentage-of-completion method, the estimated cost increase necessitates a current period adjustment of previously recognized gross profit; the adjustment results in recording a current period loss. No adjustment is necessary under the cost-recovery method because gross profit is only recognized upon completion of the contract.

Cost estimates at the end of the current period may indicate that a loss will result upon completion of the entire contract. Under both methods, the entire loss must be recognized in the current period.

***38.** It is improper to recognize the entire franchise fee as revenue at the date of sale when many of the services of the franchisor are yet to be performed.

*__39.__ Continuing franchise fees should be reported as revenue when the performance obligations related to those fees have been satisfied by the franchisor. These revenues are generally recognized over time as the related product and services are provided. Continuing product sales would be accounted for in the same manner as would any other product sales.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 18-1

No entry is required on May 10, 2015, because neither party has performed on the contract. That is, neither party has an unconditional right as of May 10, 2015. On June 15, 2015, Cosmo delivers the product and therefore should recognize revenue as it received an unconditional right to consideration on that date. In addition, Cosmo satisfies its performance obligation by delivering the product to Greig.

The journal entry to record the sale and related cost of goods sold is as follows.

June 15, 2015

Account	Debit	Credit
Accounts Receivable	2,000	
Sales Revenue		2,000
Cost of Goods Sold	1,300	
Inventory		1,300

After receiving the cash payment on July 15, 2015, Cosmo makes the following entry.

July 15, 2015

Account	Debit	Credit
Cash	2,000	
Accounts Receivable		2,000

BRIEF EXERCISE 18-2

In evaluating how to account for the modification, Stengel Co. concludes that the remaining services to be provided are distinct from the services transferred on or before the date of the contract modification. In addition, Stengel has the right to receive an amount of consideration that reflects the standalone selling price of the reduced menu of maintenance services. Therefore, Stengel allocates the new transaction price of $80,000 to the third year of service. In effect, Stengel should account for this modification as a termination of the original contract and the creation of a new contract.

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BRIEF EXERCISE 18-3

Ismail accounts for the bundle of goods and services as a single performance obligation because the goods or services in the bundle are highly interrelated. Ismail also provides a significant service by integrating the goods or services into the combined item (that is, the hospital) for which the customer has contracted. In addition, the goods or services are significantly modified and customized to fulfill the contract. Revenue for the performance obligation would be recognized over time by selecting an appropriate measure of progress toward satisfaction of the performance obligation.

BRIEF EXERCISE 18-4

The performance obligations relate to the license and the consulting services. They are distinct.

(a) If interdependent, the contract is accounted for as a single revenue amount of £200,000.

(b) If not interdependent, service revenue is £75,000 and the license revenue is £125,000, based on estimated standalone values.

BRIEF EXERCISE 18-5

The transaction price should include management's estimate of the amount of consideration to which the entity will be entitled. Given the multiple outcomes and probabilities available based on prior experience, the probability-weighted method is the most predictive approach for estimating the variable consideration in this situation:

Completion Date	Probability	Expected Value
August 1	70% chance of $1,150,000 =	$ 805,000
August 8	20% chance of $1,100,000 =	220,000
August 15	5% chance of $1,050,000 =	52,500
After August 15	5% chance of $1,000,000 =	50,000
		$1,127,500

Thus, the total transaction price is $1,127,500 based on the probability-weighted estimate.

BRIEF EXERECISE 18-6

(a) In this situation, Nair uses the most likely amount as the estimate - $1,150,000.

(b) When there is limited information with which to develop a reliable estimate of completion, then no revenue related to the incentive should be recognized until the uncertainty is resolved. Therefore, no revenue is recognized until the completion of the contract.

BRIEF EXERCISE 18-7

January 2, 2015

Notes Receivable	11,000	
Discount on Notes Receivable		1,000
Sales Revenue		10,000
Cost of Goods Sold	6,000	
Inventory		6,000

Revenue Recognized in 2015

Sales revenue	R$10,000
Interest revenue (R$11,000 – R$10,000)	1,000
Total revenue	R$11,000

BRIEF EXERCISE 18-8

Parnevik should record revenue of €660,000 on March 1, 2015, which is the fair value of the inventory in this case. Parnevik is also financing this purchase and records interest revenue on the note over the 4-year period. In this case, the interest rate is imputed to be 10% ([€660,000/€1,062,937] = .6209, which is the PV of €1 factor for n = 5, I = 10%). Parnevik records interest revenue of €55,000 (10% X €660,000 X 10/12) at December 31, 2015

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BRIEF EXERCISE 18-8 (continued)

(a) The journal entries to record Parnevik's sale to Goosen Inc. and related cost of goods sold is as follows.

March 1, 2015

Notes Receivable	1,062,937	
Sales Revenue		660,000
Discount on Notes Receivable		402,937
Cost of Goods Sold	400,000	
Inventory		400,000

(b) Parnevik makes the following entry to record interest revenue for 2015.

December 31, 2015

Discount on Notes Receivable	55,000	
Interest Revenue (10% X €660,000 X 10/12)		55,000

As a practical expedient, companies are not required to reflect the time value of money to determine the transaction price if the time period for payment is less than a year.

BRIEF EXERCISE 18-9

January income	$ 0
February income ($4,000 – $3,000) X 50%	$500
March income ($4,000 – $3,000) X 30%)	$300
April income ($4,000 – $3,000) X 20%)	$200

BRIEF EXERCISE 18-10

Accounts Receivable	103,400	
Sales Revenue ($110,000 X 94%)		103,400

Nolan reduces revenue by $6,600 ($110,000 – $103,400) because it is probable that it will provide rebates amounting to 6%. As a result, Nolan recognized revenue of $103,400.

BRIEF EXERCISE 18-11

July 1, 2015

No entry – neither party has performed under the contract.

On September 1, 2015, Geraths has two performance obligations: (1) the delivery of the windows and (2) the installation of the windows.

Windows	£2,000
Installation	600
Total	£2,600

Allocation

Windows (£2,000 ÷ £2,600) X £2,400 =	£1,846
Installation (£600 ÷ £2,600) X £2,400 =	554
Revenue recognized (rounded to nearest dollar)	£2,400

Geraths makes the following entries for delivery and installation.

September 1, 2015

Account	Debit	Credit
Cash	2,000	
Accounts Receivable	400	
Unearned Service Revenue		554
Sales Revenue		1,846
Cost of Goods Sold	1,100	
Inventory		1,100

(Windows delivered, performance obligation for installation recorded)

October 15, 2015

Account	Debit	Credit
Cash	400	
Unearned Service Revenue	554	
Service Revenue (Installation)		554
Accounts Receivable		400

The sale of the windows is recognized once delivered. The installation fee is recognized when the windows are installed.

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BRIEF EXERCISE 18-12

(a) July 1, 2015

No entry – neither party has performed under the contract.

On September 1, 2015, Geraths has two performance obligations: (1) the delivery of the windows and (2) the installation of the windows.

Windows	£2,000
Installation (£400 + (20% X £400)]	480
Total	£2,480

Allocation

Windows	(£2,000 ÷ £2,480) X £2,400 =	£1,935
Installation	(£480 ÷ £2,480) X £2,400 =	465
Revenue recognized (rounded to nearest dollar)		£2,400

Geraths makes the following entries for delivery and installation.

September 1, 2015

Cash	2,000	
Accounts Receivable	400	
Unearned Service Revenue		465
Sales Revenue		1,935
Cost of Goods Sold	1,100	
Inventory		1,100

(Windows delivered, performance obligation for installation recorded)

October 15, 2015

Cash	400	
Unearned Service Revenue	465	
Service Revenue (Installation)		465
Accounts Receivable		400

The sale of the windows is recognized once delivered. The installation is fee is recognized when the windows are installed.

BRIEF EXERCISE 18-12 (continued)

(b) **If Gareths cannot estimate the costs for installation, then the residual approach is used. In this approach, the total fair value of the contract is £2,400. Given that the windows have a standalone fair value of £2,000, then £400 (£2,400 – £2,000) is allocated to the installation.**

Geraths makes the following entries for delivery and installation.

September 1, 2015

	Debit	Credit
Cash	2,000	
Accounts Receivable	400	
Unearned Service Revenue		400
Sales Revenue		2,000
Cost of Goods Sold	1,100	
Inventory		1,100

(Windows delivered, performance obligation for installation recorded)

October 15, 2015

	Debit	Credit
Cash	400	
Unearned Service Revenue	400	
Service Revenue (Installation)		400
Accounts Receivable		400

BRIEF EXERCISE 18-13

July 10, 2015

		Debit	Credit
(a)	Accounts Receivable	700,000	
	Refund Liability (15% X €700,000)...........		105,000
	Sales Revenue		595,000
	Cost of Goods Sold	476,000	
	Estimated Inventory Returns	84,000*	
	Inventory		560,000

***(€560,000 ÷ €700,000) X €105,000**

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BRIEF EXERCISE 18-13 (continued)

October 11, 2015

		Debit	Credit
(b)	Refund Liability	78,000	
	Accounts Receivable		78,000
	Returned Inventory	62,400*	
	Estimated Inventory Returns		62,400

*(€560,000 ÷ €700,000) X €78,000

BRIEF EXERCISE 18-14

Upon transfer of control of the products, Kristin would recognize:

(a) Revenue of $5,800 ($20 X 290 [300-10]) products expected not to be returned)

(b) A refund liability for $200 ($20 refund X 10 products expected to be returned)

(c) An asset of $120 ($12 X 10 products) for its right to recover products from customers on settling the refund liability.

Hence, the amount recognized in cost of goods sold for 290 products is $3,480 ($12 X 290). The journal entries to record the sale and related cost of goods sold are as follows:

	Debit	Credit
Cash	6,000	
Sales Revenue		5,800
Refund Liability..		200
Cost of Goods Sold...	3,480	
Estimated Inventory Returns..................................	120	
Inventory (300 X $12).......................................		3,600

If the company is unable to estimate the level of returns with any reliability, it should not report any revenue until the returns are predictable.

BRIEF EXERCISE 18-15

When to recognize revenue in a bill-and-hold arrangement depends on the circumstances. Mills determines when it has satisfied its performance obligation to transfer a product by evaluating when ShopBarb obtains control of that product. For ShopBarb to have obtained control of a product in a bill-and-hold arrangement, all of the following criteria should be met:

(a) The reason for the bill-and-hold arrangement must be substantive.
(b) The product must be identified separately as belonging to the ShopBarb.
(c) The product currently must be ready for physical transfer to ShopBarb.
(d) Mills cannot have the ability to use the product or to direct it to another customer.

In this case, the criteria are assumed to be met. As a result, revenue recognition should be permitted at the time the contract is signed. Mills makes the following entry to record the bill and hold sale.

June 1, 2015

Accounts Receivable	200,000	
Sales Revenue		200,000
Cost of Goods Sold	110,000	
Inventory		110,000

Mills makes the following entry to record the cash received.

September 1, 2015

Cash	200,000	
Accounts Receivable		200,000

If a significant period of time elapses before payment, the accounts receivable is discounted. In addition, if one of the four conditions is violated, revenue recognition should be deferred until the goods are delivered to ShopBarb.

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BRIEF EXERCISE 18-16

Accounts Payable (ShipAway Cruise lines)	70,000	
Sales Revenue (R$70,000 X 6%)		4,200
Cash		65,800

BRIEF EXERCISE 18-17

Cash	18,850*	
Advertising Expense	500	
Commission Expense	2,150	
Revenue (consignments)		21,500

*[$21,500 – $500 – ($21,500 X 10%)]

Cost of Goods Sold	13,200	
Inventory on Consignment [60% X ($20,000 + $2,000)]		13,200

BRIEF EXERCISE 18-18

Talarczyk makes the following entry to record the sales of products with warranties.

July 1, 2015

Cash	1,012,000	
Warranty Expense	40,000	
Warranty Liability		40,000
Unearned Warranty Revenue		12,000
Sales Revenue		1,000,000

To reduce inventory and recognize cost of goods sold:

Cost of Goods Sold	550,000	
Inventory		550,000

BRIEF EXERCISE 18-18 (continued)

Talarczyk reduces the Warranty Liability account over the first two years as the actual warranty costs are incurred The company also recognizes revenue related to the service type warranty over the two-year period that extends beyond the assurance warranty period (two years). In most cases, the unearned warranty revenue is recognized on a straight line basis and the costs associated with the service type warranty are expensed as incurred.

BRIEF EXERCISE 18-19

No entry is required on May 1, 2015 because neither party has performed on the contract. On June 15, 2015, Eric agreed to pay the full price and therefore Mount has an unconditional right to those funds on that date.

On receiving the cash on June 15, 2015, Mount records the following entry.

June 15, 2015

Cash	25,000	
Unearned Sales Revenue		25,000

On satisfying the performance obligation on September 30, 2015, Mount records the following entry

September 30, 2015

Unearned Sales Revenue.......................................	25,000	
Sales Revenue		25,000

BRIEF EXERCISE 18-20

The initiation fee may be viewed as separate performance obligation because it provides a renewal option at a lower price than normally charged. As a result, BlueBox is providing a discounted price in the subsequent years. This should be reflected in the revenue recognized in all four periods. In this situation, in the total transaction price is $280 ([($5 X 12) X 3] + $100). In the first year, BlueBox would report revenue of $70 ($280 ÷ 4). The initiation fee is allocated over the entire four year period.

BRIEF EXERCISE 18-20 (continued)

Another approach is to assume that the initiation fee is a separate performance obligation because it provides a renewal option at a lower price than normally charged. As a result the initiation fee would be allocated to years two through four, unless forfeited earlier.

* BRIEF EXERCISE 18-21

Construction in Process	1,700,000	
Materials, Cash, Payables.		1,700,000
Accounts Receivable	1,200,000	
Billings on Construction in Process		1,200,000
Cash	960,000	
Accounts Receivable		960,000
Construction in Process [£1,700,000 ÷ (£1,700,000 + £3,300,000)] X £2,000,000	680,000	
Construction Expenses	1,700,000	
Revenue from Long-Term Contracts (£7,000,000 X 34%)		2,380,000

* BRIEF EXERCISE 18-22

Current Assets		
Accounts receivable		$240,000
Inventories		
Construction in process	$1,715,000	
Less: Billings	1,000,000	
Costs in excess of billings		715,000

* BRIEF EXERCISE 18-23

(a) Construction Expenses	278,000	
Construction in Process		20,000*
Revenue from Long-Term Contracts		258,000

BRIEF EXERCISE 18-23 (continued)

		Debit	Credit
(b)	**Loss from Long-Term Contracts ....**	**20,000***	
	Construction in Process		**20,000**

***[$420,000 – ($278,000 + $162,000)]**

*** BRIEF EXERCISE 18-24**

April 1, 2015

	Debit	Credit
Cash	**25,000**	
Notes Receivable ($75,000 – $25,000)....................	**50,000**	
Discount on Notes Receivable.......................		**8,598**
Unearned Service Revenue (training)............		**2,000**
Unearned Service Revenue (franchise) ($25,000 + $41,402 – $2,000).........................		**64,402**

July 1, 2015

	Debit	Credit
Unearned Service Revenue (training)	**2,000**	
Unearned Service Revenue (franchise)	**64,402**	
Franchise Revenue		**64,402**
Service Revenue (training).............................		**2,000**

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SOLUTIONS TO EXERCISES

EXERCISE 18-1 (5–10 minutes)

(a) The journal entry to record the sale and related cost of goods sold are as follows.

Accounts Receivable.....................................	600,000	
Sales Revenue (€610,000 – €10,000)......		600,000
Cost of Goods Sold	500,000	
Inventory		500,000

(b)

Cash..	610,000	
Sales Revenue..		10,000
Accounts Receivable		600,000

If payment is received after 5 days, Jupiter recognizes €600,000 sales revenue and €10,000 of additional revenue, using an account such as Sales Discounts Forfeited.

EXERCISE 18-2 (5–10 minutes)

(a) Grupo would recognize revenue of $1,000,000 at delivery.

(b) Grupo would recognize revenue of $800,000 at the point of sale.

(c) Grupo would recognize revenue of $464,000 at the point of sale.

EXERCISE 18-3 (20–25 minutes)

(a)

Cash..	9,000	
Sales Revenue (90 X R$100)..................		9,000
Cost of Goods Sold	4,860	
Inventory (90 X R$54)..............................		4,860

(b)

Cash..	1,000	
Sales Revenue (10 X R$100)..................		1,000

EXERCISE 18-3 (continued)

Cost of Goods Sold	540	
Inventory (10 X R$54).............................		540

In this situation, the contract modification for the additional 45 products is, in effect, a new and separate contract for future products that does not affect the accounting for the previously existing contract.

(c) In this case, because the new price does not reflect a standalone selling price, Gaertner allocates a modified transaction price (less the amounts allocated to products transferred at or before the date of the modification) to all remaining products to be transferred.

Under the prospective approach, Gaertner determines the transaction price for subsequent sales (R$97.86) as follows.

Consideration for products not yet delivered under original contract (R$100 X 60)	R$ 6,000
Consideration for products to be delivered under the contract modification (R$95 X 45)	4,275
Total remaining revenue	R$10,275

Revenue per remaining unit (R$10,275 ÷ 105) = R$97.86.

As indicated, the numerator includes products not yet transferred under original contract (R$100 X 60) plus products to be transferred under the contract modification (R$95 X 45), which is divided by the remaining 105 products.

The journal entries to record subsequent sales and related cost of goods sold for 10 units is as follows.

Cash (10 X R$97.86).......................................	978.60	
Sales Revenue..		978.60
Cost of Goods Sold	540.00	
Inventory..		540.00

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EXERCISE 18-4 (20–25 minutes)

(a)

January 1, 2015

Cash	10,000	
Unearned Service Revenue		10,000

December 31, 2015

Unearned Service Revenue	10,000	
Service Revenue		10,000

January 1, 2016

Cash	10,000	
Unearned Service Revenue		10,000

December 31, 2016

Unearned Service Revenue	10,000	
Service Revenue		10,000

(b)

January 1, 2017

Cash ($8,000 + $20,000)	28,000	
Unearned Service Revenue		28,000

December 31, 2017

Unearned Service Revenue ($28,000 ÷ 4)	7,000	
Service Revenue		7,000

In this case, the modification of the contract does not result in new performance obligation. As a result, the remaining service revenue is recognized evenly over the remaining four years.

EXERCISE 18-4 (continued)

(c) **Given the change in services in the extended contract period, the services are distinct; the modification should not be considered as part of the original contract – Tyler recognizes revenue on the remaining services at different rates. Tyler will recognize $6,667 ($20,000 ÷ 3) per year in the extended period (2018–2020). For 2017, Tyler makes the following entry.**

January 1, 2017

Cash ($8,000 + $20,000)	**28,000**	
Unearned Service Revenue		**28,000**

December 31, 2017

Unearned Service Revenue	**8,000**	
Service Revenue....................................		**8,000**

EXERCISE 18-5 (15–20 minutes)

(a) **Because the arrangement only has two possible outcomes (regulatory approval is achieved or not), Bai determines the transaction price based on the most likely approach. Thus, the best measure for the transaction price is ¥10,000,000.**

(b) **December 20, 2015**

No entry-neither party has performed.

January 15, 2016

Cash...	**10,000,000**	
License Revenue....................................		**10,000,000**

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EXERCISE 18-6 (15–20 minutes)

(a) Aaron determines that the transaction price for the 100 policies is $14,500 [($100 X 100) + ($10 X 4.5 X 100)].

(b) January, 2015

Cash (100 X $100)	10,000	
Accounts Receivable	4,500	
Service Revenue (Commissions)		14,500

Because on average, customers renew for 4.5 years, Aaron includes that amount in its estimate for the transaction price. When Aaron satisfies its performance obligation by selling the insurance policy to the customer, it recognizes revenue of $145 on each policy because it determines that it is reasonably assured to be entitled to that amount. Aaron concludes that its past experience is predictive, even though the total amount of commission received depends on the actions of a third party (that is, policyholder behavior). As circumstances change, Aaron updates its estimate of the transaction price and recognizes revenue (or a reduction of revenue) for those changes in circumstances.

EXERCISE 18-7 (15–20 minutes)

(a) The journal entries to record sales and related cost of goods sold are as follows.

1. June 3, 2015

Accounts Receivable	8,000	
Refund Liability		800
Sales Revenue		7,200
Estimated Inventory Returns	560*	
Cost of Goods Sold	5,040	
Inventory		5,600

* (£5,600 ÷ 8,000) X £800

EXERCISE 18-7 (continued)

The journal entries to record the return is as follows.

June 5, 2015

	Debit	Credit
Refund Liability	300	
Accounts Receivable		300
Returned Inventory *	120	
Estimated Inventory Returns		120

* Because these goods were damaged and might not be sold at a profit, they likely will be separated from other inventory. A loss may be subsequently recognized if this inventory is sold or disposed of at an amount lower than cost.

The journal entry to record delivery cost is as follows.

June 7, 2015

	Debit	Credit
Delivery Expense	24	
Cash		24

The journal entry to record payment within the discount period is as follows.

June 12, 2015

	Debit	Credit
Cash	7,546	
Sales Discounts (2% X £7,700*)	154	
Accounts Receivable (Ann Mount)		7,700
*£8,000 – £300		

(b) August 5, 2015

	Debit	Credit
Cash	7,700	
Accounts Receivable (Ann Mount)		7,546
Sales Discounts Forfeited (2% X £7,700)		154

EXERCISE 18-8 (15–20 minutes)

(a) **December 31, 2015**

Cash..	240,000	
Unearned Rent Revenue (2015 slips : 300 X €800)..........................		240,000

December 31, 2016

Cash..	152,000	
Unearned Rent Revenue (noncurrent) [2016 slips : 200 X €800 X (1.00 – .05)] ..		152,000
Cash..	38,400	
Unearned Rent Revenue (noncurrent) [2017 slips : 60 X €800 X (1.00 – .20)]		38,400

(b) The marina operator should recognize that advance rentals generated €190,400 (€152,000 + €38,400) of cash in exchange for the marina's promise to deliver future services. In effect, this has reduced future cash flow by accelerating payments from boat owners. Also, the price of rental services has effectively been reduced. The current cash bonanza does not reflect current revenue. The future costs of operation must be covered, in part, from this accelerated cash inflow. On a present value basis, the granting of these discounts seems ill-advised unless interest rates were to skyrocket so that interest revenue would offset the discounts provided or because costs for dock repairs is expected to increase significantly.

EXERCISE 18-9 (25–30 minutes)

(a) **January 2, 2015**

Cash..	150,000	
Unearned Sales Revenue		150,000

(To record upfront payment for sales of products A and B)

EXERCISE 18-9 (continued)

December 31, 2015

Interest Expense (R$150,000 X 6%)...............	9,000	
Interest Payable...		9,000

(To record interest on the contract liability)

(b) December 31, 2016

Interest Expense ([R$150,000 + R$9,000] X 6%)......................	9,540	
Interest Payable...		9,540

(To record interest on the contract liability)

(c) January 2, 2017

Unearned Sales Revenue	37,500	
Interest Payable ([R$9,000 + R$9,540] X 25%)	4,635	
Sales Revenue		42,135

(To record revenue on transfer of product A)

Note: Interest will continue to accrue on product B over the next 3 years.

EXERCISE 18-10 (5–10 minutes)

(a) The entry to record the sale and related cost of goods sold is as follows.

Accounts Receivable.....................................	410,000	
Sales Revenue..		370,000
Unearned Service Revenue		40,000

(b) First Quarter

Sales revenue...	$370,000

The revenue for installation will be recognized in the second quarter.

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EXERCISE 18-11 (25–30 minutes)

(a) The total revenue of $1,000,000 should be allocated to the two performance obligations based on their relative fair values. In this case, the fair value of the equipment should be considered $1,000,000 and the fair value of the installation fee is $50,000. The total fair value to consider is $1,050,000 ($1,000,000 + $50,000). The allocation is as follows.

Equipment ($1,000,000 / $1,050,000) X $1,000,000 = $952,381
Installation ($50,000 / $1,050,000) X $1,000,000 = $ 47,619

(b) Crankshaft makes the following entries.

September 30, 2015

Cash	1,000,000	
Service Revenue (Installation)		47,619
Sales Revenue (Equipment)		952,381
Cost of Goods Sold	600,000	
Inventory		600,000

The sale of the equipment should be recognized once the installation is completed on September 30, 2015 and the installation fee also should be recognized because these services have been provided.

As a practical expedient, if a company has two or more distinct performance obligations, it may bundle these performance obligations if they have the same revenue recognition pattern. That is they are recognized immediately or they are recognized over time using the same revenue recognition pattern.

EXERCISE 18-12 (25–30 minutes)

(a) The total revenue of $1,000,000 should be allocated to the two performance obligations based on their relative fair values. In this case, the fair value of the equipment should be considered $1,000,000 and the fair value of the installation fee, assuming a cost plus approach is $45,000 ($36,000 + [25% X $36,000]). The total fair value to consider is $1,045,000 ($1,000,000 + $45,000). The allocation is as follows.

Equipment ($1,000,000 / $1,045,000) X $1,000,000 = $ 956,938
Installation ($45,000 / $1,045,000) X $1,000,000 = $ 43,062

Crankshaft makes the following entries.

September 30, 2015

Cash	1,000,000	
Service Revenue (Installation)		43,062
Sales Revenue (Equipment)		956,938
Cost of Goods Sold	600,000	
Inventory		600,000

EXERCISE 18-13 (10–15 minutes)

(a) The separate performance obligations are the oven, installation, and maintenance service, since each item has standalone value to the customer.

(b)

Oven	€ 800/€1,025	X €1,000 =	€ 780
Installation	€ 50*/€1,025	X €1,000 =	€ 49
Maintenance	€ 175**/€1,025	X €1,000 =	€ 171
Total	€1,025		

*€50 = €850 – €800
**€175 = €975 – €800

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EXERCISE 18-14 (5–10 minutes)

(a) **January 2, 2015**

Accounts Receivable	**1,500,000**	
Refund Liability (£1,500,000 X 20%)		**300,000**
Sales Revenue		**1,200,000**
Estimated Inventory Returns	**160,000***	
Cost of Goods Sold	**640,000**	
Inventory		**800,000**

*** (20% X £800,000)**

(b) **March 1, 2015**

Refund Liability	**100,000**	
Accounts Receivable		**100,000**
Inventory	**53,333***	
Estimated Inventory Returns		**53,333**

*** (£800,000 ÷ £1,500,000) X £100,000**

(c) **If Organic Growth is unable to estimate returns, it defers recognition of revenue until the return period expires on May 2, 2015.**

EXERCISE 18-15 (15–20 minutes)

(a) **Uddin could recognize revenue at the point of sale based upon the time of shipment because the books are sold f.o.b. shipping point. That is, control has transferred and its performance obligation is met. Because the returns can be estimated, recognition is at point of sale (shipping point) with a returned liability established.**

(b) **Based on the available information, the correct treatment is to recognize revenue when the performance obligation is satisfied – in this case at the time of shipment (transfer of title). The transaction price amount is adjusted for the estimated returns for which a refund liability is recorded.**

EXERCISE 18-15 (continued)

July 1, 2015

		Debit	Credit
(c)	Accounts Receivable	15,000,000	
	Refund Liability (€15,000,000 X 12%)		1,800,000
	Sales Revenue (Texts)		13,200,000
	Estimated Inventory Returns		
	(€12,000,000 X 12%)	1,440,000	
	Cost of Goods Sold	10,560,000	
	Inventory		12,000,000

October 3, 2015

		Debit	Credit
(d)	Refund Liability	1,500,000	
	Accounts Receivable		1,500,000
	Cash	13,500,000	
	Accounts Receivable		13,500,000
	Inventory	1,200,000*	
	Estimated Inventory Returns		1,200,000

* (€12,000,000 ÷ €15,000,000) X €1,500,000

EXERCISE 18-16 (20–25 minutes)

(a) In this case, due to the agreement to repurchase the equipment, Cramer continues to have control of the asset and therefore this agreement is a financing transaction and not a sale. Thus the asset is *not* removed from the books of Cramer. The entries to record the financing are as follows.

July 1, 2015

	Debit	Credit
Cash	40,000	
Liability to Enyart Company		40,000

(b) **December 31, 2015**

	Debit	Credit
Interest Expense	1,200	
Liability to Enyart Company		
($40,000 X 6%* X 1/2)		1,200

(*) An interest rate of 6% is imputed from the agreement.

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EXERCISE 18-16 (continued)

(c) June 30, 2016

Interest Expense	1,200	
Liability to Enyart Company ($40,000 X 6% X 1/2)		1,200
Liability to Enyart Company	42,400	
Cash ($40,000 + $1,200 + $1,200)		42,400

EXERCISE 18-17 (10–15 minutes)

(a) March 1, 2015

If the selling price of the ingots was $200,000, Zagat would record the following entry when it receives the consideration from the customer:

Cash	200,000	
Liability to Werner Metal Company		200,000

(To record repurchase agreement with Werner Metal Company)

(b) May 1, 2015

Interest Expense ($200,000 X 2%)	4,000	
Liability to Werner Metal Company	200,000	
Cash		204,000

(To record payment plus interest on financing)

EXERCISE 18-18 (10–15 minutes)

(a) This transaction is a bill-and-hold situation. Delivery of the counters is delayed at the buyer's request, but the buyer takes title and accepts billing. Thus, the agreement must be evaluated to determine if revenue can be recognized before delivery.

EXERCISE 18-18 (continued)

(b) Revenue is reported at the time title passes if the following conditions are met:

(1) The reason for the bill-and-hold arrangement must be substantive.
(2) The product must be identified separately as belonging to the customer.
(3) The product currently must be ready for physical transfer to the customer, and
(4) The seller cannot have the ability to use the product or to direct it to another customer.

(c)			
	Cash	300,000	
	Accounts Receivable	1,700,000	
	Sales Revenue		2,000,000

EXERCISE 18-19 (15–20 minutes)

(a)	Inventoriable costs:		
	80 units shipped at cost of €500 each		€40,000
	Freight		840
	Total inventoriable cost		€40,840
	40 units on hand (40/80 X €40,840)		€20,420
(b)	Computation of consignment profit:		
	Consignment sales (40 X €750)		€30,000
	Cost of units sold (40/80 X €40,840)		(20,420)
	Commission charged by consignee (6% X €30,000)		(1,800)
	Advertising cost		(200)
	Installation costs		(320)
	Profit on consignment sales		€ 7,260
(c)	Remittance of consignee:		
	Consignment sales		€30,000
	Less: Commissions	€1,800	
	Advertising	200	
	Installation	320	2,320
	Remittance from consignee		€27,680

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EXERCISE 18-20 (5–10 minutes)

(a)

Cash (R$48,800 + R$1,200)	50,000	
Warranty Expense	1,200	
Warranty Liability		1,200
Sales Revenue		50,000

(b) Grando should recognize R$400 of warranty revenue in 2017 and 2018.

Cash (R$48,800 + R$1,200 + R$800)	50,800	
Warranty Expense	1,200	
Warranty Liability		1,200
Sales Revenue		50,000
Unearned Service Revenue (Warranty)		800

EXERCISE 18-21 (15–20 minutes)

(a) October 1, 2015

Cash (or Accounts Receivable)	3,600	
Warranty Expense	200	
Unearned Service Revenue (assurance-type warranty)		200
Unearned Service Revenue (service-type warranty)		400
Sales Revenue		3,200

(To record sales revenue and contract liabilities related to warranties.)

Cost of Goods Sold	1,440	
Inventory		1,440

(To record inventory sold and recognize cost of sales).

(b) Celic reduces the warranty liability (unearned service revenue) associated with the assurance-type warranty as actual warranty costs are incurred during the first 90 days after the customer receives the computer. Celic recognizes the warranty liability associated with the service-type warranty as revenue during the contract warranty period and recognizes the costs associated with providing the service-type warranty as they are incurred.

EXERCISE 18-22 (10–15 minutes)

(a) No entry – neither party has performed on the contract on January 1, 2015.

(b) The entries to record the sale and related cost of goods sold of the wiring base is as follows.

February 5, 2015

Account	Debit	Credit
Contract Asset	1,200	
Sales Revenue		1,200
Cost of Goods Sold	700	
Inventory		700

(c) The entries to record the sale and related cost of goods sold of the shelving unit is as follows.

February 25, 2015

Account	Debit	Credit
Cash	3,000	
Contract Asset		1,200
Sales Revenue		1,800
Cost of Goods Sold	320	
Inventory		320

EXERCISE 18-23 (10–15 minutes)

(a) **May 1, 2015**

No entry – neither party has performed on May 1, 2015.

(b) **May 15, 2015**

Account	Debit	Credit
Cash	900	
Unearned Sales Revenue		900

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EXERCISE 18-23 (continued)

(c) May 31, 2015

	Debit	Credit
Unearned Sales Revenue	900	
Sales Revenue		900
Cost of Goods Sold	575	
Inventory		575

EXERCISE 18-24 (15–20 minutes)

(a) The £2,000 commission costs related to obtaining the contract are recognized as an asset. The design services (£3,000), controllers (£6,000), testing and inspection fees (£2,000) should be capitalized as well, as they are specific to the contract.

The £27,000 cost for the receptacles and loading equipment appear to be independent of the contract, as Rex will retain these and likely use them in other projects.

(b) Companies only capitalize costs that are direct, incremental, and recoverable (assuming that the contract period is more than one year. General and administrative costs (unless those costs are explicitly chargeable to the customer under the contract) and wasted materials and labor are not eligible for capitalization and should be expensed as incurred.

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EXERCISE 18-25 (10–15 minutes)

(a) If the contract is for 1 year or less, Rex can use the practical expedient and recognize the incremental costs of obtaining a contract as an expense when incurred.

(b) The collectibility of the contract payments will not affect the amount of revenue recognized. That is, the amount recognized is not adjusted for customer credit risk. Rather, Rex should report the revenue gross and then present an allowance for any impairment due to bad debts (recognized initially and subsequently in accordance with the respective bad debt guidance) prominently as an expense in the income statement. If there is significant doubt at contract inception about collectibility, this may indicate that the parties to the contract are not committed to perform their respective obligations to the contract (i.e., existence of a contract may not be met). No revenue is recognized until the issue of significant doubt is resolved.

* EXERCISE 18-26 (20–25 minutes)

(a) Gross profit recognized in:

	2015		2016		2017	
Contract price		€1,600,000		€1,600,000		€1,600,000
Costs:						
Costs to date	€400,000		€825,000		€1,070,000	
Estimated costs to complete	600,000	1,000,000	275,000	1,100,000	0	1,070,000
Total estimated profit		600,000		500,000		530,000
Percentage completed to date		X 40%*		X 75%**		X 100%
Total gross profit recognized		240,000		375,000		530,000
Less: Gross profit recognized in previous years		0		240,000		375,000
Gross profit recognized in current year		€ 240,000		€ 135,000		€ 155,000

*€400,000 ÷ €1,000,000 **€825,000 ÷ €1,100,000

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EXERCISE 18-26 (continued)

(b)

	Debit	Credit
Construction in Process (€825,000 – €400,000)....	425,000	
Materials, Cash, Payables		425,000
Accounts Receivable (€900,000 – €300,000).........	600,000	
Billings on Construction in Process..............		600,000
Cash (€810,000 – €270,000)...................................	540,000	
Accounts Receivable		540,000
Construction Expenses..	425,000	
Construction in Process	135,000	
Revenue from Long-Term Contracts		560,000*

*€1,600,000 X (75% – 40%)

(c) Gross profit recognized in:

	2015	2016	2017
Gross profit	€–0–	€–0–	€530,000*

*€1,600,000 – €1,070,000

* EXERCISE 18-27 (10–15 minutes)

(a)

Contract billings to date..	€61,500
Less: Accounts receivable 12/31/15.....................	18,000
Portion of contract billings collected....................	€43,500

(b) $\frac{€19,500}{€65,000}$ = 30%

(The ratio of gross profit to revenue recognized in 2015.)

€1,000,000 X .30 = €300,000

(The initial estimated total gross profit before tax on the contract.)

* EXERCISE 18-28 (10–15 minutes)

DOUGHERTY INC.
Computation of Gross Profit to be
Recognized on Uncompleted Contract
Year Ended December 31, 2015

Total contract price	
Estimated contract cost at completion	
($800,000 + $1,200,000)	$2,000,000
Fixed fee	450,000
Total	2,450,000
Total estimated cost	(2,000,000)
Gross profit	450,000
Percentage of completion ($800,000 ÷ $2,000,000)	X 40%
Gross profit to be recognized	$ 180,000

EXERCISE 18-29 (15–20 minutes)

(a) 2015: $\frac{£640,000}{£1,600,000}$ X £2,200,000 = £880,000

2016: £2,200,000 (contract price) minus £880,000 (revenue recognized in 2015) = £1,320,000 (revenue recognized in 2016).

(b) Gross profit in 2016 is £135,000 (£2,200,000 – £2,065,000*).

*£640,000 + £1,425,000

(c) Using the percentage-of-completion method, the following entries would be made:

Construction in Process	640,000	
Materials, Cash, Payables		640,000
Accounts Receivable	420,000	
Billings on Construction in Process		420,000
Cash	350,000	
Accounts Receivable		350,000
Construction in Process	240,000*	
Construction Expenses	640,000	
Revenue from Long-Term Contracts [from (a)]		880,000

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EXERCISE 18-29 (continued)

***[£2,200,000 – (£640,000 + £960,000)] X (£640,000 ÷ £1,600,000)**
(£640,000 + £960,000)

(Using the cost-recovery method, all the same entries are made except for the last entry. No income is recognized until the contract is completed.)

*** EXERCISE 18-30 (15–25 minutes)**

(a) Computation of Gross Profit to Be Recognized under Cost-Recovery Method.

No computation necessary. No gross profit to be recognized prior to completion of contract.

Computation of Billings on Uncompleted Contract in Excess of Related Costs under Cost-Recovery Method.

Construction costs incurred during the year	**¥ 1,185,800**
Partial billings on contract (25% X ¥6,000,000)	**(1,500,000)**
	¥ (314,200)

(b) Contract price	**¥6,000,000**	
Costs to date	**¥1,185,800**	
Est costs to complete..................................	**4,204,200**	
Total		**5,390,000**
Est profit (¥6,000,000 – ¥5,390,000)............	**610,000**	
% of completion	**X 22% ***	
Gross profit		**¥ 134,200**

*** (¥1,185,800 ÷ ¥5,390,000)**

***EXERCISE 18-31 (20–25 minutes)**

(a) May 1, 2015

Cash	28,000	
Notes Receivable ($70,000 – $28,000)	42,000	
Discount on Notes Receivable [$42,000 – (2.48685* X $14,000)]		7,184
Unearned Franchise Revenue ($28,000 + $42,000 – $7,184)		62,816

July 1, 2015

Unearned Franchise Revenue	62,816	
Franchise Revenue		62,816

(b) May 1, 2015

Cash	28,000	
Notes Receivable	42,000	
Discount on Notes Receivable [$42,000 – (2.48685* X $14,000)]		7,184
Contract Liability (franchise) ($28,000 + $34,816)		62,816

December 31, 2015

Unearned Franchise Revenue	13,959**	
Franchise Revenue		13,959

** ($62,816 ÷ 3) X 8/12

(c) May 1, 2015

Cash	28,000	
Notes Receivable	42,000	
Discount on Notes Receivable [$42,000 – (2.48685* X $14,000)]		7,184
Unearned Service Revenue (Training)		2,400
Unearned Franchise Revenue ($25,000 + $42,000 – $7,184 – $2,400)		60,416

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July 1, 2015

Unearned Service Revenue (Training)	1,200***	
Unearned Franchise Revenue	60,416	
Franchise Revenue		60,416
Service Revenue (Training)		1,200

*** $2,400 ÷ 2

September 1, 2015

Unearned Service Revenue (Training)	1,200*	
Service Revenue		1,200

(Calculations rounded)

*Present value of ordinary annuity 3 years at 10%.

*EXERCISE 18-32 (15–20 minutes)

(a) **January 1, 2015**

Cash..	10,000	
Notes Receivable	40,000	
Discount on Notes Receivable		10,433
Unearned Franchise Revenue (€10,000 + €29,567)...		39,567*

*Down payment made on 4/1/15	€10,000.00
Present value of an ordinary annuity (€8,000 X 3.69590)	29,567.20
Total revenue recorded by Campbell and total acquisition cost recorded by Lesley Benjamin...	€39,567.20

April 1, 2015

Unearned Franchise Revenue	39,567	
Franchise Revenue		39,567

EXERCISE 18-32 (continued)

(b) **January 1, 2015**

Cash	10,000	
Notes Receivable	40,000	
Discount on Notes Receivable		10,433
Unearned Service Revenue (Training)		3,600
Unearned Franchise Revenue		35,967

April 1, 2015

Unearned Service Revenue (Training)	3,600	
Unearned Franchise Revenue	35,967	
Franchise Revenue		35,967
Service Revenue (Training)		3,600

December 31, 2015

Unearned Service Revenue (Training)	2,700	
Service Revenue		2,700

(c) **January 1, 2015**

Cash	10,000	
Notes Receivable	40,000	
Discount on Notes Receivable		10,433
Contract Liability (franchise) (€10,000 + €29,567)		39,567*

*Down payment made on 4/1/15	€10,000.00
Present value of an ordinary annuity (€8,000 X 3.69590)	29,567.20
Total revenue recorded by Campbell and total acquisition cost recorded by Lesley Benjamin	€39,567.20

December 31, 2015

Unearned Franchise Revenue	7,913	
Franchise Revenue		7,913

** (€39,567 ÷ 5)

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TIME AND PURPOSE OF PROBLEMS

Problem 18-1 (Time 30–35 minutes)
Purpose—to provide the student with an opportunity to determine transaction price, allocate the transaction price to performance obligations, and account for upfront fees.

Problem 18-2 (Time 20–25 minutes)
Purpose—to provide the student with an opportunity to determine transaction price, allocate the transaction price to performance obligations, and account for a contract modification.

Problem 18-3 (Time 30–35 minutes)
Purpose—to provide the student with an opportunity to determine transaction price, allocate the transaction price to performance obligations, and account for discounts and time value.

Problem 18-4 (Time 35–40 minutes)
Purpose—to provide the student with an opportunity to determine transaction price, allocate the transaction price to performance obligations, and account for discounts and time value.

Problem 18-5 (Time 35–40 minutes)
Purpose—to provide the student with an opportunity to determine transaction price, allocate the transaction price to performance obligations, and account for returns and consignment sales.

Problem 18-6 (Time 25–30 minutes)
Purpose—to provide the student with an opportunity to account for warranty and customer loyalty programs.

Problem 18-7 (Time 30–35 minutes)
Purpose—to provide the student with an understanding of the criteria and applications utilized in the determination revenue recognition for a bonus point program. The student is required to allocate the transaction price to the bonus points and sales revenue for the products and then prepare entries for bonus point redemptions.

Problem 18-8 (Time 30–45 minutes)
Purpose—the student defines and describes the point of sale and over-time recognition of revenue. Then the student computes revenue to be recognized in situations using a point of sale and over time recognition, when the right of return exists, consignments, and a service contracts.

Problem 18-9 (Time 30–35 minutes)
Purpose—to provide the student with an understanding of and an opportunity to determine transaction price, allocate the transaction price to performance obligations, and account for time value, gift cards, and discounts.

***Problem 18-10** (Time 30–40 minutes)
Purpose—to provide the student with an understanding of both the percentage-of-completion and cost-recovery methods of accounting for long-term construction contracts. The student is required to compute the estimated gross profit that would be recognized during each year of the construction period under each of the two methods.

***Problem 18-11** (Time 20–25 minutes)
Purpose—to provide the student with a long-term construction contract problem that requires the recognition of a loss during an interim year on a contract that is profitable overall. This problem requires application of both the percentage-of-completion method and the cost-recovery method to an interim loss situation.

***Problem 18-12** (Time 40–50 minutes)
Purpose—to provide the student with a long-term construction contract problem that requires the recognition of a loss during an interim year on an unprofitable contract overall. This problem requires application of both the percentage-of-completion method and the cost-recovery method to this unprofitable contract.

***Problem 18-13** (Time 35–45 minutes)
Purpose—to provide the student with an understanding of the accounting treatment accorded franchising operations. The student is required to discuss the alternatives types of franchise fees – initial franchise fee and continuing franchise fees – and determine when fees should be recognized, at a point in time or over time.

SOLUTIONS TO PROBLEMS

PROBLEM 18-1

(a) **The total revenue of €50,000 (100 contracts X €500) should be allocated to the two performance obligations based on their relative fair values. In this case, the fair value of each tablet is €250 and the fair value of the internet service is €286. The total fair value to consider is €536 (€250 + €286) for each contract. The allocation for each contract is as follows.**

Tablet (€250 / €536) X €500 = €233
Internet service (€286 / €536) X €500 = €267
The present value of the future payments on the internet service (€7,200* X 2.5771 $_{[PVOA\ n=3,\ i=8\%]}$) = €18,555

***€72 X 100**

January 2, 2015

	Debit	Credit
Cash (€10,000 + €21,445*)	**31,445**	
Notes Receivable (€72 X 3 X 100)	**21,600**	
Discount on Notes Receivable (€21,600 – €18,555)		**3,045**
Unearned Service Revenue (100 X €267)		**26,700**
Sales Revenue (100 X €233)		**23,300**
Cost of Goods Sold (€175 X 100)	**17,500**	
Inventory		**17,500**

***Cash received on 100 contracts:**

Total contract price	**€50,000**
Less upfront payment on the internet service	**10,000**
Less the PV of the note receivable	**18,555**
	€21,445

The sale of the tablets (and gross profit) should be recognized once the tablets are delivered on January 2, 2015.

PROBLEM 18-1 (Continued)

Amortization Schedule for the Notes Receivable

Date	Cash	Interest Revenue	Amortization	Balance
January 2, 2015	-	-	-	€18,555
January 2, 2016	€7,200	€1,484	€5,716	12,839
January 2, 2017	€7,200	1,027	6,173	6,666
January 2, 2018	€7,200	534	6,666	- 0 -

(b) **December 31, 2016**

Interest Receivable (€12,839 X 8%)........................	1,027	
Interest Revenue		1,027

(To accrue interest on the note receivable)

Unearned Service Revenue (€26,700 ÷ 4)...............	6,675	
Service Revenue...		6,675

(To record revenue for Internet service provided in 2016)

(c) **December 31, 2017**

Interest Receivable (€6,666 X 8%)..........................	534	
Interest Revenue		534

(To accrue interest on the note receivable)

Unearned Service Revenue (€26,700 ÷ 4)...............	6,675	
Service Revenue...		6,675

(To record revenue for internet service provided in 2017)

(d) Without reliable data with which to estimate the standalone selling price of the Internet service Tablet Tailors allocates €250 for each contract to revenue on the tablets, with the residual amount allocated to the Internet service.

PROBLEM 18-1 (Continued)

Tablet Tailors makes the following entries.

January 2, 2015

Cash (€10,000 + € 21,445*)	**31,445**	
Notes Receivable (€7,200 X 3)	**21,600**	
Discount on Notes Receivable...........................		**3,045**
Unearned Service Revenue		
(Internet Service) (€250 X 100)		**25,000**
Sales Revenue (Equipment)...............................		**25,000**
Cost of Goods Sold	**17,500**	
Inventory..		**17,500**

The sale of the tablets (and gross profit) should be recognized once the tablets are delivered on January 2, 2015. Tablet Tailors will recognize service revenue of €6,250 (€25,000 ÷ 4) in each year of the 4-year contract.

PROBLEM 18-2

(a) Since the services in the extended period are the same as those provided in the original contract period, the services are not distinct; the modification should be considered as part of the original contract. Tablet Tailors makes the following entries in 2017 related to the 40 extended contracts.

January 2, 2017

Cash (40 X €120)	4,800	
Unearned Service Revenue		4,800

(To record cash received for 40 extended Internet service contracts)

December 31, 2017

Unearned Service Revenue	3,870	
Service Revenue (€15,480* ÷ 4)		3,870

Consideration for service not yet delivered under original contract (€267 X 40)	€10,680
Consideration for products to be delivered under the contract modification (€40 X €120)	4,800
Total remaining revenue	€15,480

Revenue per remaining unit (€15,480 ÷ 4) = €3,870.

(b) Bundle B contains three different performance obligations: (1) the tablet, (2) Internet service, and (3) tablet service plan.

The total revenue of €120,000 (200 contracts X €600) should be allocated to the three performance obligations based on their relative fair values:

Tablet	€250
Internet service	286
Tablet service plan	160
Total estimated fair value	€696

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PROBLEM 18-2 (Continued)

The allocation for a single contract is as follows.

Tablet	€215	(€250 / €696) X €600
Internet Service	247	(€286 / €696) X €600
Tablet service	138	(€160 / €696) X €600
Total Revenue	€600	

Tablet Tailors makes the following entries for 200 Tablet Bundle B.

The present value of the future payments on the Internet service (€14,400 (€72 X 200) X 2.5771)	37,110

January 2, 2015

Cash (€20,000 + €62,890*)	82,890	
Notes Receivable ([100 X 2 X €72] X 3)	43,200	
Discount on Notes Receivable		6,090
Unearned Service Revenue (Internet Service) (200 X €247)		49,400
Unearned Service Revenue (Tablet Service) (200 X €138)		27,600
Sales Revenue (Equipment) (200 X €215)		43,000
Cost of Goods Sold	35,000	
Inventory (200 X €175)		35,000

*** Cash received on 200 contracts:**

Total contract price (200 X €600)	€120,000
Less upfront payment on the internet service	20,000
Less PV of the note receivable	37,110
	€ 62,890

The sale of the tablets (and gross profit) should be recognized once the tablets are delivered on January 2, 2015. The unearned service revenue for Internet and tablet services will be recognized evenly over the 4-year contract.

PROBLEM 18-3

(a) **The total revenue of £8,000 (£800 X 10) should be allocated to the two performance obligations based on their relative fair values. In this case, the fair value of the grills is considered £7,000 (£700 X 10) and the fair value of the installation fee is £1,500 (£150 X 10). The total fair value to consider is therefore £8,500 (£7,000 + £1,500). The allocation is as follows.**

Equipment (£7,000 / £8,500) X £8,000 = £6,588
Installation (£1,500 / £8,500) X £8,000 = £1,412

Grill Master makes the following entries.

April 20, 2015

Cash	8,000	
Unearned Service Revenue (Installation)		1,412
Unearned Sales Revenue (Equipment)		6,588

May 15, 2015

Unearned Service Revenue (Installation)	1,412	
Unearned Sales Revenue (Equipment)	6,588	
Service Revenue (Installation)		1,412
Sales Revenue (Equipment)		6,588
Cost of Goods Sold	4,250	
Inventory (£425 X 10)		4,250

Both the sale of the equipment and the service revenue are recognized once the installation is completed on May 15, 2015.

(b) **April 17, 2015**

Cash	52,640	
Sales Revenue ([£200 X 280] X 94%)		52,640
Cost of Goods Sold	44,800	
Inventory (280 X £160)		44,800

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PROBLEM 18-3 (Continued)

In this case, Grill Master should reduce revenue recognized by £3,360 [£56,000 (£280 X 200) – £52,640] because it is probable (almost certain) that it will provide the discounted price amounting to 6%.

(c) (1) September 1, 2015

Accounts Receivable		
[£20,000 – (3% X £20,000)]	**19,400**	
Sales Revenue		**19,400**
Cost of Goods Sold	**11,000**	
Inventory (£550 X 20)		**11,000**

September 25, 2015

Cash	**19,400**	
Accounts Receivable		**19,400**

(2) September 1, 2015

Accounts Receivable		
[£20,000 – (3% X £20,000)]	**19,400**	
Sales Revenue		**19,400**
Cost of Goods Sold	**11,000**	
Inventory (£550 X 20)		**11,000**

October 15, 2015

Cash (£1,000 X 20)	**20,000**	
Accounts Receivable		**19,400**
Sales Discounts Forfeited		
(3% X £20,000)		**600**

PROBLEM 18-3 (Continued)

(d) **October 1, 2015**

Notes Receivable	5,324	
Sales Revenue (£5,324 X .75132 [PV i=10%, n=3])		4,000
Discount on Notes Receivable		1,324
Cost of Goods Sold	2,700	
Inventory		2,700

December 31, 2015

Discount on Notes Receivable	100	
Interest Revenue (10% X ¼ X £4,000)		100

Grill Master records revenue of £4,000 on October 1, 2015, which is the value of consideration received, based on the present value of the note. As a practical expedient, companies are not required to reflect the time value of money to determine the transaction price if the time period for payment is less than a year.

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PROBLEM 18-4

(a) The journal entry to record the sale and related cost of goods sold is as follows

June 1, 2015

Accounts Receivable	70,000	
Refund Liability (4% X $70,000)		2,800
Sales Revenue		67,200
Cost of Goods Sold	38,400	
Estimated Inventory Returns		
(4% X $40,000)...	1,600	
Inventory ($400 X 100)		40,000

(b) (1) **May 1, 2015**

Cash (20% X [300 X $1,800])	108,000	
Unearned Sales Revenue		108,000

(2) **August 1, 2015**

Unearned Sales Revenue..........................	108,000	
Cash...	432,000	
Sales Revenue ($1,800 X 300)		540,000
Cost of Goods Sold...................................	280,500	
Inventory (300 X [$260 + $275 + $400])		280,500

Note: Economy could account for the installation and product sales as separate performance obligations. However, as a practical expedient, if a company has two or more distinct performance obligations, it may bundle these performance obligations if they have the same revenue recognition pattern. That is, they are recognized immediately or they are recognized over time using the same revenue recognition pattern.

(c) The introduction of a bonus payment gives rise to a change in the transaction price for the revenue arrangement, to include an adjustment for management's estimate of the amount of consideration to which Economy will be entitled. Given the information available, a probability-weighted method could be used:

60% chance of $594,000 ($540,000 X 1.10)	= $356,400
40% chance of $540,000	= 216,000
	$572,400

Thus, the total transaction price is $572,400 based on the probability-weighted estimate.

Note: With just two possible outcomes, Economy uses the "most-likely-amount" approach, resulting in a transaction price of $594,000.

May 1, 2015

Cash (20% X $540,000)	108,000	
Unearned Sales Revenue		108,000

July 1, 2015

Unearned Sales Revenue	108,000	
Cash ($594,000 – $108,000)	486,000	
Sales Revenue		594,000
Cost of Goods Sold	280,500	
Inventory (300 X [$400 + $275 + 260])		280,500

(d) This is a bill-and-hold arrangement. It appears that the criteria for Epic to have obtained control of the appliance bundles have been met:

(a) The reason for the bill-and-hold arrangement must be substantive.
(b) The product must be identified separately as belonging to Epic Rentals.
(c) The product currently must be ready for physical transfer to Epic.
(d) Economy cannot have the ability to use the product or to direct it to another customer.

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PROBLEM 18-4 (Continued)

Economy makes the following entries.

February 1, 2015

Cash (10% X 400 X $1,800)	72,000	
Unearned Sales Revenue		72,000

April 1, 2015

Unearned Sales Revenue	72,000	
Accounts Receivable ($720,000 – $72,000)	648,000	
Sales Revenue		720,000
Cost of Goods Sold	374,000	
Inventory (400 X $935)		374,000

Thus, Economy has transferred control to Epic; Economy has a right to payment for the appliances and legal title has transferred.

PROBLEM 18-5

(a) **January 1, 2015**

Notes Receivable (Mills)..................................	**48,000**	
Refund Liability (5% X $48,000)...............		**2,400**
Sales Revenue..		**45,600**
Cost of Goods Sold..	**30,400**	
Estimated Inventory Returns		
(40* X $800 X 5%)	**1,600**	
Inventory (40 X $800)		**32,000**

***($48,000 ÷ $1,200)**

(b) **August 10, 2015**

Cash (16 X $3,600*)	**57,600**	
Sales Revenue..		**57,600**
Cost of Goods Sold..	**32,000**	
Inventory (16 X $2,000)		**32,000**

*** Note: There is no adjustment for the volume discount, because it is not probable that the customer will reach the benchmark.**

(c) **This revenue arrangement has 3 different performance obligations: (1) the sale of the dryers, (2) installation, and (3) the maintenance plan.**

The total revenue of $45,200 should be allocated to the three performance obligations based on their relative *fair values:*

Dryers (3 X $14,000)	**$42,000**
Installation (3 X $1,000)	**3,000**
Maintenance plan	**1,200**
Total estimated fair value	**$46,200**

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PROBLEM 18-5 (Continued)

The allocation for a single contract is as follows.

Dryers	$41,091	($42,000 / $46,200) X $45,200
Installation	2,935	($3,000 / $46,200) X $45,200
Maintenance plan	1,174	($1,200 / $46,200) X $45,200
Total Revenue	$45,200	

Ritt makes the following entries.

June 20, 2015

Cash (20% X $45,200)	9,040	
Accounts Receivable ($45,200 – $9,040)	36,160	
Unearned Service Revenue (Installation)		2,935
Unearned Service Revenue (Maintenance Plan)		1,174
Unearned Sales Revenue (Dryers)		41,091

(To record agreement to sell and install dryers and maintenance plan)

Note: Rather than Unearned Sales Revenue, a Contract Liability Account could be used.

October 1, 2015

Cash (80% X $45,200)	36,160	
Accounts Receivable		36,160
Unearned Service Revenue (Installation)	2,935	
Unearned Sales Revenue (Dryers)	41,091	
Service Revenue (Installation)		2,935
Sales Revenue (Dryers)		41,091
Cost of Goods Sold	33,000	
Inventory (3 X $11,000)		33,000

PROBLEM 18-5 (Continued)

December 31, 2015

Unearned Service Revenue (Service Plans)	98	
Service Revenue (Service Plans) ($1,174 X 3/36)		98

(d) Entries for Ritt

April 25, 2015

No entry – Inventory continues to be controlled by Ritt.

June 30, 2015

Cash [(60 X $1,200) – (10% X 60 X $1,200)]....	64,800	
Consignment Expense	7,200	
Sales Revenue..		72,000
Cost of Goods Sold (60 X $800)......................	48,000	
Inventory		48,000

Entries for Farm Depot

April 25, 2015

No entry – Inventory continues to be controlled by Ritt.

Summary Entry for Consignment Sales

Cash	72,000	
Due to Ritt (Consignment)......................		64,800
Unearned Service Revenue (Consignments)....................................		7,200

June 30, 2015

Due to Ritt	64,800	
Unearned Service Revenue (Consignments)..	7,200	
Service Revenue (Consignments)		7,200
Cash		64,800

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PROBLEM 18-6

(a) Warranty Performance Obligations

1. To transfer 70 specialty winches to customers with a total transaction price of HK$21,000.
2. To provide extended warranty services for 20 winches after the assurance warranty period with a value of HK$8,000 (20 X HK$400) for 2 years.

With respect to the bonus points program, Hui has a performance obligation for:

1. Delivery of the products and,
2. Future delivery of products that can be purchased by customers with bonus points earned.

(b)

	Debit	Credit
Cash	29,000	
Warranty Expense	2,100	
Warranty Liability		2,100
Unearned Warranty Revenue (20 X HK$400)		8,000
Sales Revenue		21,000

To reduce inventory and recognize cost of goods sold:

	Debit	Credit
Cost of Goods Sold	16,000	
Inventory		16,000

Hui reduces the Warranty Liability account over the first two years as the actual warranty costs are incurred. The company also recognizes revenue related to the service type warranty over the three year period that extends beyond the assurance warranty period (two years). In most cases, the unearned warranty revenue is recognized on a straight line basis and the costs associated with the service type warranty are expensed as incurred.

(c) Because the points provide a material right to a customer that it would not receive without entering into a contract, the points are a separate performance obligation. Hui allocates the transaction price to the product and the points on a relative standalone selling price basis as follows.

PROBLEM 18-6 (Continued)

The standalone selling price:

Purchased products:	**HK$100,000**
Estimated points to be redeemed	**9,500**
Total Fair Value	**HK$109,500**

The allocation is as follows.

Products (HK$100,000 / HK$109,500) X HK$100,000 = HK$91,324
Installation (HK$9,500 / HK$109,500) X HK$100,000 = HK$ 8,676

To record sales of products subject to bonus points:

Cash..	**100,000**	
Liability to Bonus Point Customers.......		**8,676**
Sales Revenue...		**91,324**
Cost of Goods Sold (1 – 45%) X HK$100,000	**55,000**	
Inventory...		**55,000**

Additional Sales Revenue from bonus point redemptions, if 4,500 points have been redeemed: (4,500 points ÷ 9,500 points) X HK$8,676 = HK$4,110

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PROBLEM 18-7

(a) The transaction price is allocated to the products and loyalty points, as follows:

	Standalone Selling Prices	Percent Allocated	Transaction Price	Allocated Amounts
Produce Purchases	€300,000	80%	€300,000	€240,000
Loyalty Points	75,000	20%	€300,000	60,000
	€375,000		€300,000	€300,000

(b) July 2, 2015

Cash..	300,000	
Unearned Sales Revenue………..............		60,000
Sales Revenue ……………………….........		240,000
Cost of Goods Sold	171,000	
Inventory……………………………............		171,000

(c) At July 31, 2015, the revenue recognized as a result of the loyalty points redeemed is €24,000 (€60,000 X [30,000 ÷ 75,000]).

Note: Assuming the points were applied to cash purchases with a sales value of €75,000 (cost of €39,000), Martz makes the following entries during July.

Cash..	51,000	
Unearned Sales Revenue	24,000	
Sales Revenue		75,000
Cost of Goods Sold	39,000	
Inventory (€30,000 X 1.3)		39,000

PROBLEM 18-8

(a) DeMent recognizes revenue when it delivers books to distributors, which is when it satisfies the performance obligation. The transaction price for the arrangement is adjusted for the expected returns, unless no reliable estimate of returns can be developed. In that case the amount of revenue recognized may be constrained to amounts not subject to returns – until the returns are known.

Ankiel recognizes revenue when alarm systems are delivered to customers, which is when it satisfies the performance obligation related to product sales. Commissions are recorded as expenses and a warranty liability and expense are recorded for the assurance warranty.

Depp recognizes revenue over time as the asset management services are provided. The transaction price may adjusted for the expected bonus payment.

(b) Dement Publishing Division

Sales—fiscal 2015	**$7,000,000**
Less: Refund liability (20%)	**1,400,000**
Net sales—revenue to be recognized in fiscal 2015	**$5,600,000**

Although distributors can return up to 30 percent of sales, prior experience indicates that 20 percent of sales is the expected average amount of returns. The collection of 2014 sales has no impact on fiscal 2015 revenue. The 21 percent of returns on the initial $5,500,000 of 2015 sales confirms that 20 percent of sales will provide a reasonable estimate.

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PROBLEM 18-8 (Continued)

<u>Ankiel Securities Division</u>

Revenue for fiscal 2015 = <u>$5,200,000</u>.

The revenue is the amount of goods actually billed and shipped when revenue is recognized at point of sale (terms of F.O.B. factory). Orders for goods do not constitute sales. Down payments are not sales. The actual freight costs are expenses made by the seller that the buyer will reimburse at the time s/he pays for the goods.

Commissions and warranty returns are also selling expenses. Both of these expenses will be accrued and will appear in the operating expenses section of the income statement.

<u>Depp Advisory Division</u>

Revenue for 1st Quarter of fiscal 2015 = $6,000 ($2,400,000 X .25%)

Depp is not reasonably assured to be entitled to the incentive fee until the end of the year. Although Depp has experience with similar contracts, that experience is not predictive of the outcome of the current contract because the amount of consideration is highly susceptible to volatility in the market. In addition, the incentive fee has a large number and high variability of possible consideration amounts. The bonus payment should be deferred until the end of the year, as it is subject to substantial volatility.

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PROBLEM 18-9

(a) Sales with financing

January 1, 2015

Notes Receivable	5,000	
Discount on Notes Receivable		550
Sales Revenue (£5,000 X .89)		4,450
Cost of Goods Sold	4,000	
Inventory		4,000

Total revenue for Colbert

Sales revenue	£5,000	(Gross profit = £1,000)
Interest revenue (£4,450 X 6%)	267	
	£5,267	

(b) Gift Cards

March 1, 2015

Cash	2,000	
Unearned Sales Revenue (20 X £100)		2,000

March 31, 2015

Unearned Sales Revenue	1,000	
Sales Revenue (10 X £100)		1,000
Cost of Goods Sold	800	
Inventory (10 X £80)		800

April 30, 2015

Unearned Sales Revenue	600	
Sales Revenue (6 X £100)		600
Cost of Goods Sold	480	
Inventory (6 X £80)		480

PROBLEM 18-9 (Continued)

June 30, 2015

Unearned Sales Revenue	100	
Sales Revenue (1 [20 X .05] X £100)		100
Cost of Goods Sold	80	
Inventory (1 [20 X .05] X £80)		80

In addition, an additional entry is made on June 30, 2015 to recognize that 15% of the gift cards (3 cards) will not be redeemed.

June 30, 2015

Unearned Sales Revenue	300	
Sales Revenue (3 X £100)........................		300

There is no cost of goods sold related to the last 3 gift cards as they were not redeemed.

(c) Bundle Sales

Since the paper is delivered later, Colbert has two performance obligations, the printer and the stand and the paper. As indicated, the standalone price for the printer, stand, and paper is £5,625, but the bundled price for all three is £5,125. In this case, the performance obligation related to the printer and stand is where the discount applies. As a result, the allocation of the discount of £500 should be allocated to these two items, as follows.

	Allocated Amounts
Paper	£ 175
Printer and stand (£5,125 – £175)	4,950
Total	£5,125

PROBLEM 18-9 (Continued)

The journal entries are as follows:

March 1, 2015

Cash..	51,250	
Sales Revenue (10 X £4,950)		49,500
Unearned Sales Revenue (paper)		1,750
Cost of Goods Sold [10 X (£4,000 + £200].....	42,000	
Inventory..		42,000

(To record sale of printer and stand)

September 1, 2015

Unearned Sales Revenue (Paper)..................	1,750	
Sales Revenue (10 X £175)		1,750
Cost of Goods Sold	1,350	
Inventory (10 X £135)		1,350

(To record sale of paper)

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*PROBLEM 18-10

(a)

	2015	2016	2017
Contract price	$900,000	$900,000	$900,000
Less estimated cost:			
Costs to date	270,000	450,000	610,000
Estimated cost to complete	330,000	150,000	—
Estimated total cost	600,000	600,000	610,000
Estimated total gross profit	$300,000	$300,000	$290,000

Gross profit recognized in—

	2015	2016	2017
2015: $\frac{\$270,000}{\$600,000}$ X $300,000 =	$135,000		
2016: $\frac{\$450,000}{\$600,000}$ X $300,000 =		$225,000	
Less 2015 recognized gross profit		135,000	
Gross profit in 2016		$ 90,000	
2017: Less 2015–2016 recognized gross profit			225,000
Gross profit in 2017			$ 65,000

(b) In 2015 and 2016, no gross profit would be recognized.

Total billings	$900,000
Total cost..	(610,000)
Gross profit recognized in 2017	$290,000

* PROBLEM 18-11

(a) **Computation of Recognizable Profit/Loss**
Percentage-of-Completion Method

2015

Costs to date (12/31/15)	€2,880,000
Estimated costs to complete	3,520,000
Estimated total costs	€6,400,000
Percent complete (€2,880,000 ÷ €6,400,000)	45%
Revenue recognized (€8,400,000 X 45%)	€3,780,000
Costs incurred	(2,880,000)
Profit recognized in 2015	€ 900,000

2016

Costs to date (12/31/16)	
(€2,880,000 + €2,230,000)	€5,110,000
Estimated costs to complete	2,190,000
Estimated total costs	€7,300,000
Percent complete (€5,110,000 ÷ €7,300,000)	70%
Revenue recognized in 2016	
(€8,400,000 X 70%) – €3,780,000	€2,100,000
Costs incurred in 2016	(2,230,000)
Loss recognized in 2016	€ (130,000)

2017

Total revenue recognized	€8,400,000
Total costs incurred	(7,300,000)
Total profit on contract	1,100,000
Deduct profit previously recognized	
(€900,000 – €130,000)	770,000
Profit recognized in 2017	€ 330,000

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PROBLEM 18-11 (Continued)

(b) No profit or loss recognized in 2015 and 2016

	2017
Contract price	€8,400,000
Costs incurred	7,300,000*
Profit recognized	€1,100,000

*€2,880,000 + €2,230,000 + €2,190,000

* PROBLEM 18-12

(a) **Computation of Recognizable Profit/Loss**
Percentage-of-Completion Method

2015

Costs to date (12/31/15)	$ 300,000
Estimated costs to complete	1,200,000
Estimated total costs	$1,500,000
Percent complete ($300,000 ÷ $1,500,000)	20%
Revenue recognized ($1,900,000 X 20%)	$ 380,000
Costs incurred	(300,000)
Profit recognized in 2015	$ 80,000

2016

Costs to date (12/31/16)	$1,200,000
Estimated costs to complete	800,000
Estimated total costs	2,000,000
Contract price	(1,900,000)
Total loss	$ 100,000
Total loss	$ 100,000
Plus gross profit recognized in 2015	80,000
Loss recognized in 2016	$ 180,000

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PROBLEM 18-12 (Continued)

2017

Costs to date (12/31/17)	$2,100,000
Estimated costs to complete	0
	2,100,000
Contract price	1,900,000
Total loss	$ (200,000)

Total loss	$ (200,000)
Less: Loss recognized in 2016	180,000
Loss recognized in 2017	$ (20,000)

(b) No profit or loss in 2015

2016

Cost to date (12/31/16)	$1,200,000
Estimated costs to completed	800,000
Estimated total costs	2,000,000
Deduct contract price	1,900,000
Loss recognized in 2016	$ (100,000)

2017

Total costs incurred	$2,100,000
Total revenue recognized	1,900,000
Total loss on contract	(200,000)
Deduct loss recognized in 2016	(100,000)
Loss recognized in 2017	$ (100,000)

* PROBLEM 18-13

(a) A company recognizes revenue in the accounting period when a performance obligation is satisfied—the revenue recognition principle. A key element of the revenue recognition principle is that a company recognizes revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration that it receives, or expects to receive, in exchange for those goods or services.

Companies satisfy performance obligations either at a point in time or over a period of time. Companies recognize revenue over a period of time if one of the following two criteria is met.

1. **The customer controls the asset as it is created or enhanced.**

2. **The company does not have an alternative use for the asset created or enhanced and either (1) the customer receives benefits as the company performs and therefore the task would not need to be re-performed, or (2) the company has a right to payment and this right is enforceable.**

In the case of a franchise, fees related to rights to use the intellectual property generally are recognized at a point in time, usually when the franchise begins operation. That is because at that time, the customer controls the product or service when it has the ability to direct the use of and obtain substantially all the remaining benefits from the franchise rights. Control also includes the customer's ability to prevent other companies from directing the use of, or receiving the benefit, from the asset or service.

The continuing franchise fees are recognized over time, because they are in exchange for products and services transferred to the franchisee during the franchise period.

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PROBLEM 18-13 (Continued)

(b)

January 5, 2015

		Debit	Credit
(1)	Cash..	20,000	
	Notes Receivable............................	100,000	
	Discount on Notes Receivable (R$100,000 – R$75,816*)..........		24,184
	Unearned Franchise Revenue....		95,816

* Present value of future payments (R$20,000 X 3.79079)

June 1, 2015

		Debit	Credit
(2)	Unearned Franchise Revenue.........	20,000	
	Franchise Revenue		20,000

(To record revenue from delivery of franchise rights.)

December 31, 2015

		Debit	Credit
(3)	Cash (R$260,000 X 2%)....................	5,200	
	Franchise Revenue		5,200

(To recognize continuing franchise fees)

	Debit	Credit
Unearned Franchise Revenue (R$75,816 ÷ 60 X 6)	7,582	
Franchise Revenue		7,582

(To record ongoing fees for brand maintenance)

	Debit	Credit
Discount on Notes Receivable........	3,791	
Interest Revenue (R$75,816 X 10% 1/2)................		3,791

(c) In this situation Amigos would then record the entire franchise fee of R$95,816 when the franchise opens. That is, franchise revenue is recognized at a point in time.

TIME AND PURPOSE OF CONCEPTS FOR ANALYSIS

CA 18-1 (Time 20–30 minutes)
Purpose—to provide the student an opportunity to describe the 5-step revenue recognition model and explain the importance of fair value measurement and the definitions of asset and liabilities to application of the 5-step model.

CA 18-2 (Time 20–30 minutes)
Purpose—to provide the student an opportunity to describe the revenue recognition principle and the importance of control and the definitions of assets and liabilities to application of the revenue recognition principle.

CA 18-3 (Time 25–30 minutes)
Purpose—to provide the student with an understanding of the conceptual merits of recognizing revenue at the point of sale. The student is required to explain and defend the reasons why the point of sale is usually used as the basis for the timing of revenue recognition, plus describe the situations where revenue would be recognized over time.

CA 18-4 (Time 25–30 minutes)
Purpose—to provide the student with an understanding of the conceptual factors underlying the recognition of revenue. The student is required to explain and justify why revenue is often recognized as earned at the time of sale, the situations when it would be appropriate to recognize revenue over time.

CA 18-5 (Time 20–25 minutes)
Purpose— to provide the student with an understanding of the conceptual factors underlying the recognition of revenue. The student is required to explain the factors that result in the constraint of or deferral of revenue recognition.

CA 18-6 (Time 35–45 minutes)
Purpose—to provide the student an opportunity to explain how a magazine publisher should recognize subscription revenue. The case is complicated by a 25% return rate and a premium offered to subscribers. The effect on the current ratio must be discussed.

CA 18-7 (Time 25–30 minutes)
Purpose—to provide the student with an understanding of the criteria and applications utilized in the determination revenue recognition for a bonus point program. The student is required to discuss the factors to be considered in determining when revenue should be recognized, plus apply these factors in discussing the accounting alternatives that should be considered for the recognition of revenues and related expenses with regard to the information presented in the case.

CA 18-8 (Time 20–25 minutes)
Purpose—to provide the student an ethical situation related to the recognition of revenue from membership fees.

***CA 18-9** (Time 20–25 minutes)
Purpose—to provide the student an opportunity to discuss the theoretical justification for use of the percentage-of-completion method. The student explains how progress billings are accounted for and how to determine the income recognized in the second year of a contract by the percentage-of-completion method. The student indicates the effect on earnings per share in the second year of a four-year contract from using the percentage-of-completion method instead of the cost-recovery method.

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SOLUTIONS TO CONCEPTS FOR ANALYSIS

CA 18-1

(a) The 5-step model is as follows.

1. Identify the contract with customers.

   A contract is an agreement that creates enforceable rights or obligations and (1) has commercial substance, (2) has been approved and both parties are committed to performing their obligations, (3) the company can identify each party's rights regarding the goods or services to be transferred, and (4) the payment terms. A company applies the revenue guidance to contracts with customers and must determine if new performance obligations are created by a contract modification.

2. Identify the separate performance obligations in the contract.

   A performance obligation is a promise in a contract to provide a product or service to a customer. A performance obligation exists if the customer can benefit from the good or service on its own or together with other readily available resources. A contract may be comprised of multiple performance obligations. The accounting for multiple performance obligations is based on evaluation of whether the product or service is distinct within the contract. If each of the goods or services is distinct, but is interdependent and interrelated, these goods and services are combined and reported as one performance obligation.

3. Determine the transaction price.

   The transaction price is the amount of consideration that a company expects to receive from a customer in exchange for transferring goods and services. In determining the transaction price, companies must consider the following factors: (1) variable consideration, (2) time value of money, (3) non-cash consideration, (4) consideration paid to a customer, and (5) upfront fee payments.

4. Allocate the transaction price to separate performance obligations.

   If there is more than one performance obligation, allocate the transaction price based on relative fair values. The best measure of fair value is what the good or service could be sold for on a standalone basis (standalone selling price). Estimates of standalone selling price can be based on (1) adjusted market assessment, (2) expected cost plus a margin approach, or (3) a residual approach.

CA 18-1 (Continued)

5. Recognize revenue when each performance obligation is satisfied.

   A company satisfies its performance obligation when the customer obtains control of the good or service. Companies satisfy performance obligations either at a point in time or over a period of time. Companies recognize revenue over a period of time if (1) the customer controls the asset as it is created or the company does not have an alternative use for the asset, and (2) the company has a right to payment.

(b) A contract is an agreement between two or more parties that creates enforceable rights or obligations. Contracts can be written, oral, or implied from customary business practice. By definition, revenue from a contract with a customer cannot be recognized until a contract exists. On entering into a contract with a customer, a company obtains rights to receive consideration from the customer and assumes obligations to transfer goods or services to the customer (performance obligations).

In some cases, there are multiple contracts related to the transaction, and accounting for each contract may or may not occur, depending on the circumstances. These situations often develop when not only a product is provided but some type of service is performed as well.

(c) Companies often have to allocate the transaction price to more than one performance obligation in a contract. If an allocation is needed, the transaction price allocated to the various performance obligations is based on their relative fair value. The best measure of fair value is what the company could sell the good or service on a standalone basis, referred to as the standalone selling price. If this information is not available, companies should use their best estimate of what the good or service might sell for as a standalone unit. Depending on the circumstances, companies use the following approaches to determine standalone fair value: (1) Adjusted market assessment approach - Evaluate the market in which it sells goods or services and estimate the price that customers in that market are willing to pay for those goods or services. That approach also might include referring to prices from the company's competitors for similar goods or services and adjusting those prices as necessary to reflect the company's costs and margins; (2) Expected cost plus a margin approach - Forecast expected costs of satisfying a performance obligation and then add an appropriate margin for that good or service; or (3) Residual approach - If the standalone selling price of a good or service is highly variable or uncertain, then a company may estimate the standalone selling price by reference to the total transaction price less the sum of the observable standalone selling prices of other goods or services promised in the contract. A selling price is highly variable when a company sells the same good or service to different customers (at or near the same time) for a broad range of amounts. A selling price is uncertain when a company has not yet established a price for a good or service and the good or service has not previously been sold.

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CA 18-1 (Continued)

(d) Companies use an asset-liability model to recognize revenue. For example, when a company delivers a product (satisfying its performance obligation), it has a right to consideration and therefore has a contract asset. If, on the other hand, the customer performs first, by prepaying, the seller has a contract liability. Companies must present these contract assets and contract liabilities on their statement of financial position. Contract assets are of two types: (1) unconditional rights to receive consideration because the company has satisfied its performance obligation with a customer, and (2) conditional rights to receive consideration because the company has satisfied one performance obligation but must satisfy another performance obligation in the contract before it can bill the customer. Companies should report unconditional rights to receive consideration as a receivable on the statement of financial position. Conditional rights on the statement of financial position should be reported separately as contract assets. A contract liability is a company's obligation to transfer goods or services to a customer for which the company has received consideration from the customer.

CA 18-2

(a) A company recognizes revenue in the accounting period when a performance obligation is satisfied—the revenue recognition principle. A key element of the revenue recognition principle is that a company recognizes revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration that it receives, or expects to receive, in exchange for those goods or services.

Companies satisfy performance obligations either at a point in time or over a period of time. Companies recognize revenue over a period of time if one of the following two criteria is met.

1. The customer controls the asset as it is created or enhanced.

2. The company does not have an alternative use for the asset created or enhanced and either (1) the customer receives benefits as the company performs and therefore the task would not need to be **re-performed, or (2) the company has a right to payment and this right is enforceable.**

The concept of change in control is the deciding factor in determining when a performance obligation is satisfied. The customer controls the product or service when it has the ability to direct the use of and obtain substantially all the remaining benefits from the asset or service. Control also includes the customer's ability to prevent other companies from directing the use of, or receiving the benefit, from the asset or service. Indicators that the customer has obtained control are as follows:

1. The company has a right to payment for the asset.
2. The company transferred legal title to the asset.

CA 18-2 (Continued)

3. The company transferred physical possession of the asset.
4. The customer has significant risks and rewards of ownership.
5. The customer has accepted the asset.

(b) Companies use an asset-liability model to recognize revenue. For example, when a company delivers a product (satisfying its performance obligation), it has a right to consideration and therefore has a contract asset. If, on the other hand, if the customer performs first, by prepaying, the seller has a contract liability. Companies must present these contract assets and contract liabilities on their balance sheets. Contract assets are of two types: (1) unconditional rights to receive consideration because the company has satisfied its performance obligation with a customer, and (2) conditional rights to receive consideration because the company has satisfied one performance obligation but must satisfy another performance obligation in the contract before it can bill the customer. Companies should report unconditional rights to receive consideration as a receivable on the balance sheet. Conditional rights on the balance sheet should be reported separately as contract assets. A contract liability is a company's obligation to transfer goods or services to a customer for which the company has received consideration from the customer.

(c) **Collectibility** refers to a customer's credit risk—that is, the risk that a customer will be unable to pay the amount of consideration in accordance with the contract. Any time a company sells a product or performs a service on account, a collectibility issue occurs. Will the customer pay the promised consideration? Whether a company will get paid for satisfying a performance obligation is not a consideration in determining revenue recognition. The amount recognized is not adjusted for customer credit risk. Rather, companies report the revenue gross and then present an allowance for any impairment due to bad debts (recognized initially and subsequently in accordance with the respective bad debt guidance) prominently as an operating expense in the income statement.

If significant doubt exists at contract inception about collectibility, it often indicates that the parties are not committed to their obligations. As a result, it may mean that the existence of a contract is not met.

CA 18-3

(a) The point of sale is the most widely used basis for the timing of revenue recognition because in most cases it provides the degree of objective evidence that control has transferred to the customers. In other words, sales transactions with outsiders represent the point in the revenue-generating process when most of the uncertainty about satisfying a performance obligation is resolved.

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CA 18-3 (Continued)

(b) 1. Though it is recognized that revenue is earned throughout the entire production process, generally it is not feasible to measure revenue on the basis of operating activity. It is not feasible because of the absence of suitable criteria for consistently and objectively arriving at a periodic determination of the amount of revenue to recognize.

Also, in most situations the sale represents the most important single step in satisfying a performance obligation. Prior to the sale, the amount of revenue anticipated from the processes of production is merely prospective revenue; its realization remains to be validated by actual sales. The accumulation of costs during production does not alone generate revenue. Rather, revenues are recognized by the completion of the entire process, including making sales.

Thus, as a general rule, the sale cannot be regarded as being an unduly conservative basis for the timing of revenue recognition. Except in unusual circumstances, revenue recognition prior to sale would be anticipatory in nature and unverifiable in amount.

2. To criticize the sales basis as not being sufficiently conservative because accounts receivable do not represent disposable funds, it is necessary to assume that the collection of receivables is the decisive step in satisfying a performance obligation and that periodic revenue measurement and, therefore, net income should depend on the amount of cash generated during the period. This assumption disregards the fact that the sale usually represents the decisive factor in satisfying a performance obligation and substitutes for it the administrative function of managing and collecting receivables. In other words, the investment of funds in receivables should be regarded as a policy designed to increase total revenues, properly recognized at the point of sale, and the cost of managing receivables (e.g., bad debts and collection costs) should be matched with the sales in the proper period.

The fact that some revenue adjustments (e.g., sales returns) and some expenses (e.g., bad debts and collection costs) may occur in a period subsequent to the sale does not detract from the overall usefulness of the sales basis for the timing of revenue recognition. Both can be estimated with sufficient accuracy so as not to detract from the reliability of reported net income.

Thus, in the vast majority of cases for which the sales basis is used, estimating errors, though unavoidable, will be too immaterial in amount to warrant deferring revenue recognition to a later point in time.

(c) **Over-time.** This basis of recognizing revenue is frequently used by firms whose major source of revenue is long-term construction projects. For these firms the point of sale is far less significant to satisfying a performance obligation than is production activity because the sale is assured under the contract (except of course where performance is not substantially in accordance with the contract terms).

To defer revenue recognition until the completion of long-term construction projects could impair significantly the usefulness of the intervening annual financial statements because the volume of contracts completed during a period is likely to bear no relationship to production volume. During each year that a project is in process a portion of the contract price is, therefore, appropriately recognized as that year's revenue. The amount of the contract price to be recognized should be proportionate to the year's production progress on the project.

Income might be recognized on a production basis for some products whose salability at a known price can be reasonably determined as might be the case with some precious metals and agricultural products.

CA 18-3 (Continued)

It should be noted that the use of the production basis in lieu of the sales basis for the timing of revenue recognition is justifiable only when total profit or loss on the contracts can be estimated with reasonable accuracy and its ultimate realization is reasonably assured.

CA 18-4

(a) Recognizing revenue at point of sale (a point-in-time) is appropriate for many revenue arrangements, because this is the time at which control of the asset transfers to the customer. That is, the concept of change in control is the deciding factor in determining when a performance obligation is satisfied. The customer controls the product or service when it has the ability to direct the use of and obtain substantially all the remaining benefits from the asset or service. Control also includes the customer's ability to prevent other companies from directing the use of, or receiving the benefit, from the asset or service. Change in control indicators are as follows:

1. The company has a right to payment for the asset.
2. The company transferred legal title to the asset.
3. The company transferred physical possession of the asset.
4. The customer has significant risks and rewards of ownership.
5. The customer has accepted the asset.

Thus, for many revenue arrangements (for delivery of goods and/or services), these indicators are present at point of sale.

(b) Companies recognize revenue over a period of time if one of the following two criteria is met.

1. The customer controls the asset as it is created or enhanced.

2. The company does not have an alternative use for the asset created or enhanced and either (1) the customer receives benefits as the company performs and therefore the task would not need to be re-performed, or (2) the company has a right to payment and this right is enforceable.

A company recognizes revenue from a performance obligation over time by measuring the progress toward completion. The method selected for measuring progress should depict the transfer of control from the company to the customer. Companies use various methods to determine the extent of progress toward completion. The most common are the cost-to-cost and units-of-delivery methods. The objective of all these methods is to measure the extent of progress in terms of costs, units, or value added. Companies identify the various measures (costs incurred, labor hours worked, tons produced, floors completed, etc.) and classify them as input or output measures.

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CA 18-4 (Continued)

Input measures (e.g., costs incurred and labor hours worked) are efforts devoted to a contract. Output measures (with units of delivery measured as tons produced, floors of a building completed, miles of a highway completed, etc.) track results. Neither is universally applicable to all long-term projects. Their use requires the exercise of judgment and careful tailoring to the circumstances.

Both input and output measures have certain disadvantages. The input measure is based on an established relationship between a unit of input and productivity. If inefficiencies cause the productivity relationship to change, inaccurate measurements result.

Another potential problem is front-end loading, in which significant upfront costs result in higher estimates of completion. To avoid this problem, companies should disregard some early-stage construction costs—for example, costs of uninstalled materials or costs of subcontracts not yet performed—if they do not relate to contract performance.

Similarly, output measures can produce inaccurate results if the units used are not comparable in time, effort, or cost to complete. For example, using floors (stories) completed can be deceiving. Completing the first floor of an eight-story building may require more than one-eighth the total cost because of the substructure and foundation construction.

The most popular input measure used to determine the progress toward completion is the cost-to-cost basis. Under this basis, a company measures the percentage of completion by comparing costs incurred to date with the most recent estimate of the total costs required to complete the contract. The percentage-of- completion method is discussed more fully in Appendix 18A, which examines the accounting for long-term contracts.

CA 18-5

(a) Fahey records €1,700,000 on the date of sale. Only €1,700,000 is recognized at point of sale because this amount is not subject to a discount.

(b) In situations where there may be returns or variable consideration, revenue on sales subject to reversal may not be recognized (constrained). Companies therefore may only recognize revenue if (1) they have experience with similar contracts and are able to estimate the returns, and (2) based on experience, they do not expect a significant reversal of revenue previously recognized.

To account for the sale of products with a right of return (and for some services that are provided subject to a refund), the seller should recognize all of the following.

1. Revenue for the transferred products in the amount of consideration to which the seller is reasonably assured to be entitled (considering the products expected to be returned).

CA 18-5 (Continued)

2. A refund liability.

3. An asset (and corresponding adjustment to cost of sales) for its right to recover glass from the customer on settling the refund liability.

(c) GAAP in the past has required that revenue be recognized only when collectibility is reasonably assured. However, the new guidance permits companies to recognize revenue earlier even if collectibility is a problem.

Collectibility refers to a customer's credit risk—that is, the risk that a customer will be unable to pay the amount of consideration in accordance with the contract. Any time a company sells a product or performs a service on account, a collectibility issue occurs. The amount recognized is ***not*** adjusted for customer credit risk. Rather, companies report the revenue gross and then present an allowance for any impairment due to bad debts (recognized initially and subsequently in accordance with the respective bad debt guidance) prominently as an operating expense in the income statement.

If significant doubt exists at contract inception about collectibility, it often indicates that the parties are not committed to their obligations. As a result, it may mean that the existence of a contract is not met.

CA 18-6

(a) Receipts based on subscriptions should be credited to Unearned Sales Revenue. As each monthly issue is distributed, Unearned Sales Revenue is reduced (Dr.) and Sales Revenue is recognized (Cr.). A problem results because of the unqualified guarantee for a full refund. Certain companies experience such a high rate of returns to sales that they find it necessary to postpone revenue recognition (revenue recognized is constrained) until the return privilege has substantially expired. Cutting Edge is expecting a 25% return rate and it will not expire until the new subscriptions expire. Companies therefore may only recognize revenue on sales with return privileges if (1) they have experience with similar contracts and are able to estimate the returns, and (2) based on experience, they do not expect a significant reversal of revenue previously recognized.

(b) To account for the sale of products with a right of return (and for some services that are provided subject to a refund), the seller should recognize all of the following.

1. Revenue for the transferred products in the amount of consideration to which the seller is reasonably assured to be entitled (considering the products expected to be returned).

2. A refund liability.

3. An asset (and corresponding adjustment to cost of sales) for its right to recover inventory from the customer on settling the refund liability.

CA 18-6 (Continued)

(c) Since the atlas premium may be accepted whenever requested, it is necessary for Cutting Edge to record a liability (a performance obligation) for estimated premium claims outstanding. According to **GAAP,** the estimated premium claims outstanding is a contingent liability which should be reported since it can be readily estimated [60% of the new subscribers X (cost of atlas = $2)] and its occurrence is probable. As the new subscription is obtained, Cutting Edge should record the estimated liability as follows:

Premium Expense	XXX	
Premium Liability..		XXX

Upon request for the atlas and payment of $2 by the new subscriber, Cutting Edge should record:

Cash..	XXX	
Premium Liability	XXX	
Inventory of Premiums		XXX

(d) The current ratio (Current Assets ÷ Current Liabilities) will change, but not in the direction Embry thinks. As subscriptions are obtained, current assets (cash or accounts receivable) will increase and current liabilities (unearned revenue) will increase by the same amount. In addition, the liabilities for estimated premium claims outstanding and the refund liability will increase with no change in current assets. Consequently, the current ratio will decrease rather than increase as proposed. Naturally as the revenue is recognized, these ratios will become more favorable. Similarly, the debt to equity ratio will not be decreased due to the increase in liabilities.

CA 18-7

(a) A company recognizes revenue in the accounting period when a performance obligation is satisfied—the revenue recognition principle. A key element of the revenue recognition principle is that a company recognizes revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration that it receives, or expects to receive, in exchange for those goods or services.

The concept of change in control is the deciding factor in determining when a performance obligation is satisfied. The customer controls the product or service when it has the ability to direct the use of and obtain substantially all the remaining benefits from the asset or service. Control also includes the customer's ability to prevent other companies from directing the use of, or receiving the benefit, from the asset or service. Indicators of change in control include:

1. The company has a right to payment for the asset.
2. The company transferred legal title to the asset.
3. The company transferred physical possession of the asset.
4. The customer has significant risks and rewards of ownership.
5. The customer has accepted the asset.

Companies satisfy performance obligations either at a point in time or over a period of time. Companies recognize revenue over a period of time if one of the following two criteria is met.

1. The customer controls the asset as it is created or enhanced.

2. The company does not have an alternative use for the asset created or enhanced and either (1) the customer receives benefits as the company performs and therefore the task would not need to be re-performed, or (2) the company has a right to payment and this right is enforceable.

CA 18-7 (Continued)

(b) Griseta & Dubel Inc., in effect, collects cash for merchandise credits far in advance of when merchants furnish the goods. Thus, this is an example of upfront payments. In addition, since the data indicate that about 5 percent of the credits sold will never be redeemed, it also has revenue from this source unless these credits are redeemed. Griseta & Dubel's revenues are recognized when the performance obligation is met when credits are redeemed.

The performance obligation is to deliver premiums (tickets and other items) in the future. This revenue is recognized when the bonus points sales occur. Reasonable estimation is crucial to revenue recognition. Griseta and Dubel uses historical bonus points data to estimate the amount of consideration to allocate to the future bonus point revenue.

(c) Griseta & Dubel's major asset (in terms of data given in the question) would be its inventory of premiums. The major account with a credit balance would be performance obligation to deliver to merchants premiums in the future.

CA 18-8

(a) Honesty and integrity of financial reporting versus higher corporate profits are the ethical issues. Nies's position represents IFRS. The financial statements should be presented fairly and that will not be the case if Avery's approach is followed. External users of the statements such as investors and creditors, both current and future, will be misled.

(b) Nies should insist on statement presentation in accordance with IFRS. If Avery will not accept Nies's position, Nies will have to consider alternative courses of action, such as contacting higher-ups at Midwest, and assess the consequences of each.

* CA 18-9

(a) Widjaja Company should recognize revenue as it performs the work on the contract (the percentage-of-completion method) because it meets the criteria for revenue recognition over time.

(b) Progress billings would be accounted for by increasing accounts receivable and increasing progress billings on contract, a contra-asset that is offset against the Construction in Process account. If the Construction in Process account exceeds the Billings on Construction in Process account, the two accounts would be shown net in the current assets section of the statement of financial position. If the Billings on Construction in Process account exceeds the Construction in Process account, the two accounts would be shown net, in most cases, in the current liabilities section of the statement of financial position.

(c) The income recognized in the second year of the four-year contract would be determined using the cost-to-cost method of determining percentage of completion as follows:

1. The estimated total income from the contract would be determined by deducting the estimated total costs of the contract (the actual costs to date plus the estimated costs to complete) from the contract price.

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CA 18-9 (Continued)

2. The actual costs to date would be divided by the estimated total costs of the contract to arrive at the percentage completed. This would be multiplied by the estimated total income from the contract to arrive at the total income recognizable to date.

3. The income recognized in the second year of the contract would be determined by deducting the income recognized in the first year of the contract from the total income recognizable to date.

(d) Earnings per share in the second year of the four-year contract would be higher using the percentage-of-completion method instead of the completed-contract method because income would be recognized in the second year of the contract using the percentage-of-completion method, whereas no income would be recognized in the second year of the contract using the cost-recovery method.

FINANCIAL REPORTING PROBLEM

(a) 2013 Revenues: £10,026.8 million.

(b) M&S's revenues increased from £9,934 million to £10,027 million from 2012 to 2013, or .9%.

(c) M&S's revenue comprises sales of goods to customers outside the company less an appropriate deduction for actual and expected returns, discounts and loyalty scheme voucher costs, and is stated net of Value Added Tax and other sales taxes. Sales of furniture and online sales are recorded on delivery to the customer.

(d) Revenues are recorded with a deduction for expected discounts and loyalty scheme vouchers. Thus, M&S, by establishing allowances for expected returns, is following accrual accounting principles.

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COMPARATIVE ANALYSIS CASE

(a) **For the year 2012, adidas reported net sales of €14,883 million and Puma reported net revenue of €3,270.7 million.**

adidas increased its revenues €1,561 million or 11.7% from 2011 to 2012 while Puma increased its revenue €261.7 million or 8.7% from 2011 to 2012.

(b) **Yes, revenue recognition policies are similar because both companies recognize revenue when risks and rewards of ownership have transferred to the buyer.**

(c) **adidas segment revenues for the following geographic regions:**

Geographical information (€ in millions)

	Net sales (non-Group)	
	Year ending Dec 31, 2012	Year ending Dec 31, 2011
Western Europe	4,076	3,922
European Emerging Markets	1,947	1,597
North America	3,410	3,102
Greater China	1,562	1,229
Other Asian Markets	2,407	2,103
Latin America	1,481	1,369
HQ/Consolidation	0	0
Total	14,883	13,322

COMPARATIVE ANALYSIS CASE (Continued)

Puma reported sales by region, as follows:

Region	External Sales
	1-12/2012 € million
EMEA	1,213.7
Americas	1,033.3
Asia/Pacific	710.3
Central units/consolidation	313.4
Special items	
Total	3,270.7

Thus, both companies have significant sales outside of their home region of Europe.

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FINANCIAL STATEMENT ANALYSIS CASE

BRITISH AIRWAYS

(a) British Airways (BA) primarily provides services; it recognizes passenger and cargo revenue when the transportation service is provided. Specifically, passenger tickets (net of discounts) are records as current liabilities in the sales in advance of carriage account until the fights occur. Other revenue is recognized at the time the service is provided. Commission costs are recognized at the same time as the revenue to which they relate and are charged to operating expenditure.

(b) BA's methods are entirely consistent with acceptable IFRS for the recognition and measurement of revenue. They measure revenue net of discounts and do not recognize revenue until the service is provided. This is the critical event—only when passengers fly on a BA flight is it is likely that that the economic benefits will flow to BA.

(c) In this disclosure, BA is describing its ticketing operation and the judgments involved to estimate revenue to be recognized on unused tickets. As indicated, ticket sales that are not expected to be used for transportation ('unused tickets') are recognized as revenue using estimates regarding the timing of recognition based on the terms and conditions of the ticket and historical trends. That is, BA estimates the percentage of unused tickets that will be used, based on its prior experience.

During the current year, changes in estimates regarding the timing of revenue recognition primarily for unused flexible tickets were made, resulting in increased revenue both the current and prior year. Thus, it can reliably estimate these amounts, which is what is required under IFRS. BA indicates that accurate and timely data have been obtained through the increased use of electronic tickets.

ACCOUNTING, ANALYSIS, AND PRINCIPLES

Accounting

Sales revenue	$9,500,000
Expenses	7,750,000
	1,750,000
Gross profit from pump bundle*	24,000
Gross profit on consignment sales**	120,000
Net income	$1,894,000

* Since the sump-pump and installation bundle are delivered at the same time, there are two performance obligations. Any discount is applied to the pump/installation bundle. The total transaction price of $54,600 is allocated between the equipment and installation ($43,800) and the service contract ($10,800 [$10 X 36 X 30]).

Sales revenue	$43,800	
Cost of goods sold (30 X [$540 + $150])	20,700	
Gross profit		$23,100
Service revenue [($10,800 ÷ 36) X 10]	$ 3,000	
Expense ($7,560 [$7 X 36 X 30] ÷ 36 X 10)	2,100	
Income on service contract		900
Net income on this arrangement		$24,000

** Sales revenue (200 X $1,200)	$240,000	
Cost of goods sold (200 X $540)	108,000	
Gross profit		$132,000
Consignment expense ($240,000 X 5%)		12,000
Net Income on this arrangement		$120,000

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ACCOUNTING, ANALYSIS, AND PRINCIPLES (Continued)

Analysis

Net income	$1,894,000
Depreciation expense	175,000
Increase in working capital	(250,000)
Net cash flow from operating activities	1,819,000
Less: Capital expenditures	500,000
Dividends	120,000
Free cash flow	$1,199,000

Principles

Under the 5-step model, a company first identifies the contract with customer(s); identifies the separate performance obligations in the contract; determines the transaction price; allocates the transaction price to separate performance obligations, and recognizes revenue when each performance obligation is satisfied.

As indicated, a company satisfies its performance obligation when the customer obtains control of the good or service. Companies satisfy performance obligations either at a point in time or over a period of time. Companies recognize revenue over a period of time if (1) the customer controls the asset as it is created or the company does not have an alternative use for the asset, and (2) the company has a right to payment.

In the case of the sump-pump sales, the customer has control of the pumps when the pumps are delivered and installed. The service contract revenue is recognized over time as Diversified provides the services.

With respect to the consignment sales, Menards is acting as an agent; revenue on those sales is recognized when the customers purchase (have control of) the pumps.

Using control as a key element contributes to relevance because it indicates the cash flows that the seller is entitled to as a result of the revenue arrangement, which enhances the predictive value of the revenue information.

Faithful representation may be sacrificed in situations companies must allocate the transaction price to more than one performance obligation in a contract. If an allocation is needed, the transaction price allocated to the various performance obligations is based on their relative fair value. In addition, faithful representation could be affected when companies must estimate returns, warranty obligations, and other elements that affect the transaction price. These estimates could be subject to error or bias.

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PROFESSIONAL RESEARCH

(a) IAS 18, paragraphs 15-19 addresses revenue recognition when right of return exists.

(b) "Right of return" is a term/condition allowing customers to return large amounts (a high ratio of returned merchandise to sales) of inventory.

"Bill and hold" refers to sales that the buyer is not yet ready to take delivery but the buyer takes title and accepts billing.

(c) When there is a right of return, revenue is recognized at the time of sale when the seller retains only an insignificant risk of ownership, and it can reliability estimate future returns.

An entity does not recognise revenue if it retains significant risks of ownership. Examples of situations in which the entity may retain the significant risks and rewards of ownership are:

1. **the entity retains an obligation for unsatisfactory performance not covered by normal warranties.**
2. **the receipt of the revenue from a particular sale is contingent on the buyer selling the goods.**
3. **the goods are shipped subject to installation and the installation is a significant part of the contract that has not yet been completed.**
4. **the buyer has the right to rescind the purchase for a reason specified in the sales contract, or at the buyer's sole discretion without any reason, and the entity is uncertain about the probability of return.**

(d) The seller recognises revenue when the buyer takes title, provided:

1. **it is probable that delivery will be made;**
2. **the item is on hand, identified and ready for delivery to the buyer at the time the sale is recognised;**
3. **the buyer specifically acknowledges the deferred delivery instructions; and**
4. **the usual payment terms apply.**

PROFESSIONAL RESEARCH (Continued)

Revenue is not recognised when there is simply an intention to acquire or manufacture the goods in time for delivery.

The proposed guidance under the new revenue standard can be found at pars. B2-B9 (Returns) and pars. B51-B54 (Bill and Hold).

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PROFESSIONAL SIMULATION

Measurement

The amount of revenue and expense recognized on each of the arrangements is as follows:

1.	Sales revenue [95% X (£1,500 X 240)]	£342,000	
	Cost of goods sold (£740 X 240)	177,600	
	Gross profit		£164,400
2.	Sales revenue (20 X £1,500)	30,000	
	Less: Estimated returns (3 X £1,500)	4,500	
	Net sales	25,500	
	Cost of goods sold (17 X £740)	12,580	
	Gross profit	12,920	
	Interest revenue (£30,000 X 12% X 3/12)	900	
	Net income on this arrangement		13,820
3.	Sales revenue (225 X £1,500)	337,500	
	Cost of goods sold (225 X £740)	166,500	
	Gross profit	171,000	
	Commission expense (£337,500 X 8%)	27,000	
	Net income on this arrangement		144,000
	Net income on E-Booster		£322,200

Income for the quarter: £6,500,000 – £4,350,000 + £322,200 = 2,472,220

Journal Entries

Cash (£337,500 – £27,000)	310,500	
Commission Expense	27,000	
Sales Revenue		337,500
Cost of Goods Sold	166,500	
Inventory		166,500

PROFESSIONAL SIMULATION (Continued)

Explanation

Whether a company will get paid for satisfying a performance obligation is not a consideration in determining revenue recognition. That is, the amount recognized is not adjusted for customer credit risk. If significant doubt exists at contract inception about collectibility, Outback reports the revenue gross and then presents an allowance for any impairment due to bad debts, which will reduce net income and which is reported as an operating expense in the income statement.