

CHAPTER 6

Revenue Recognition

ASSIGNMENT CLASSIFICATION TABLE

Topics	Brief Exercises	Exercises	Problems
1. Economics and legalities of selling transactions.	1, 2, 3	1	
2. Identify the five steps in the revenue recognition process.	17		
3. Determining the contract.	4		
4. Determining the performance obligations.	5		
5. Transaction price determination.	6, 7, 8, 9, 10, 11, 12, 15, 16	2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6
6. Allocation transaction price.	13	8, 9, 10, 11, 12, 13, 14	1, 2, 3, 4, 7
7. Understanding when performance obligation occurs.	14, 15, 16	15, 16, 17, 18	3, 4, 5, 8
8. Determining revenue using the earnings approach (ASPE).	3, 17, 18	19, 20, 21, 22, 23, 24	
9. Specific revenue recognition issues.	19, 20, 21, 22, 23, 24, 25, 26, 27	14, 15, 16, 17, 18	1, 2, 3, 4, 5, 6, 7, 8

ASSIGNMENT CLASSIFICATION TABLE (CONTINUED)

Topics	Brief Exercises	Exercises	Problems
10. IFRS and ASPE differences.		27, 29, 30	
11. Long-term Construction Contracts-Apply the percentage of Completion Method.	28	27, 28, 29, 30	9
12. Long-term Construction Contracts – Apply the Completed Contract Method.	29	27, 29, 30	9

ASSIGNMENT CHARACTERISTICS TABLE

Item	Description	Level of Difficulty	Time (minutes)
E6-1	Economics of transactions – various industries.	Moderate	20-25
E6-2	Sales with discounts.	Simple	5-10
E6-3	Transaction price.	Simple	5-10
E6-4	Variable consideration.	Simple	10-15
E6-5	Trailing commission.	Moderate	15-20
E6-6	Sales with discounts.	Moderate	15-20
E6-7	Sales with discounts.	Moderate	15-20
E6-8	Allocate transaction price.	Hard	25-30
E6-9	Allocate transaction price.	Simple	5-10
E6-10	Allocate transaction price.	Moderate	25-30
E6-11	Allocate transaction price.	Moderate	25-30
E6-12	Allocate transaction price.	Moderate	10-15
E6-13	Existence of a contract.	Moderate	10-15
E6-14	Existence of a contract.	Simple	10-15
E6-15	Sales with returns.	Moderate	15-20
E6-16	Sales with returns.	Moderate	15-20
E6-17	Sales with repurchase.	Moderate	15-20
E6-18	Repurchase agreement.	Simple	10-15
E6-19	Revenue recognition under earnings approach- Various consumer industries.	Hard	40-45
E6-20	Transactions with customer acceptance provisions under earnings approach.	Hard	15-20
E6-21	Bill and hold.	Moderate	10-15
E6-22	Consignment sales.	Moderate	15-20
E6-23	Warranty arrangement.	Moderate	15-20
E6-24	Warranties.	Moderate	15-20
E6-25	Contract costs.	Moderate	15-20
E6-26	Contract costs, collectibility.	Moderate	10-15
E6-27	Recognition of a profit on long-term contracts.	Moderate	20-25
E6-28	Gross profit on uncompleted contract.	Moderate	10-15
E6-29	Recognition of revenue on long-term contract and entries.	Moderate	15-20
E6-30	Recognition of profit and balance sheet amounts for long-term contracts.	Moderate	15-25

ASSIGNMENT CHARACTERISTICS TABLE (CONTINUED)

Item	Description	Level of Difficulty	Time (minutes)
P6-1	Allocate Transaction Price, Discounts, Time Value.	Moderate	25–35
P6-2	Allocate Transaction Price, Discounts, Time Value.	Moderate	50–60
P6-3	Comprehensive Three-Part Revenue	Moderate	30–45
P6-4	Recognition.	Moderate	35–40
P6-5	Time Value, Gift cards, Discounts.	Moderate	35–40
P6-6	Allocate Transaction Price, Returns, and Consignments. Customer Loyalty Program.	Moderate	30–35
P6-7	Allocate Transaction Price, Upfront Fees.	Moderate	40–45
P6-8	Warranty, Customer Loyalty Program.	Moderate	25–30
P6-9	Recognition of Profit on Long-Term Contract.	Moderate	30–40

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 6-1

	What is being given?	What is being received?
(a)	This transaction involves a sale of goods which are tangible assets. Control transfers to the buyer upon delivery, coincident with the transfer of possession and passing of legal title.	Monetary asset – cash is being received upon delivery.
(b)	This transaction involves a sale of goods which are tangible assets. Control transfers to the buyer upon delivery, coincident with the transfer of possession and passing of legal title.	Monetary asset – a short-term, interest bearing receivable is created upon delivery.
(c)	This transaction involves a sale of services for which the concepts of possession and passing of legal title do not apply.	Consideration in the form of accounting services. This transaction has commercial substance since the services are different.
(d)	This transaction involves both goods and services (also known as multiple deliverables) that are sold together for one fee.	Monetary asset – a short-term receivable is created upon delivery.

BRIEF EXERCISE 6-2

A contract is created when a company sells something.

- (a) The contract created in this transaction is likely evidenced by the sales order or invoice. With terms FOB shipping point, the seller (the manufacturer) is obligated until the goods are shipped; legal title generally passes to the buyer at this point. The buyer obtains the risks and rewards of ownership at the point of shipment. Any loss or damage incurred during shipping would be borne by the buyer.**
- (b) The contract created in this transaction is likely evidenced by the sales order or invoice. With terms FOB destination point, the seller (the manufacturer) is obligated until the goods have been received by the buyer; legal title generally passes to the buyer at this point. Any loss or damage incurred during shipping would be borne by the seller.**
- (c) FOB terms would suggest that legal title passes at point of shipment. However, the seller (the manufacturer) has an additional implicit or constructive obligation in this contract. The seller's past practice of replacing lost or damaged products means that the seller is obligated until the goods are received by the buyer, irrespective of the passing of legal title.**

BRIEF EXERCISE 6-3

XYZ may not be able to record revenue upon delivery. The credit policy does not appear to be a normal practice for XYZ. It appears to be specific to the new product only. Concessionary terms in a sale transaction create measurement uncertainties and alter the economics of the business transaction. This policy may create additional obligations for XYZ and bring into question whether the risks and rewards of ownership, or control, have actually passed. In fact, it may indicate that a sale has not taken place. This is similar in substance to a consignment sale.

BRIEF EXERCISE 6-4

No entry is required on May 10, 2017, because neither party has performed on the contract. That is, neither party has an unconditional right as of May 10, 2017. On June 15, 2017, 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, 2017

Accounts Receivable	2,000	
Sales Revenue		2,000
Cost of Goods Sold.....	1,300	
Inventory		1,300

Upon receiving the cash payment on July 15, 2017, Cosmo makes the following entry.

July 15, 2017

Cash	2,000	
Accounts Receivable		2,000

BRIEF EXERCISE 6-5

Ellicott accounts for the bundle of goods and services as a single performance obligation because the goods or services in the bundle are highly interrelated. Ellicott 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 6-6

Under IFRS, the discount rate should be whichever of the following is more clearly determinable: (1) the prevailing rate for a similar financing arrangement or (2) the imputed rate that discounts the cash flows to the current cash selling price of the unit sold.

The present value of the cash flows using 8% would result in a selling price of \$925.93 ($\$1,000 \times PVF_{1, 8\%} = \$1,000 \times 0.92593$), which is greater than the cash selling price of \$900. Therefore, it may be more prudent to use the cash selling price to impute the interest rate.

The discount rate required to equate the present value of the cash flows with the cash selling price, is approximately 11% (cash selling price of \$900 is approximately equal to $\$1,000 \times PVF_{1, 11\%} = \$1,000 \times 0.90090$). Using Excel, the rate is 11.11%.

As a practical expedient, IFRS allow a company to ignore the financing component if the contract is less than a year.

BRIEF EXERCISE 6-7**Amount due in one year**

$$\$50,000 \times PVF_{1, 12\%} = \$50,000 \times 0.89286 \quad \mathbf{44,643}$$

Amount due in two years

$$\$50,000 \times PVF_{2, 12\%} = \$50,000 \times 0.79719 \quad \mathbf{39,860}$$

$$\mathbf{Revenue\ to\ be\ recognized\ on\ the\ date\ of\ sale} \quad \mathbf{\underline{\underline{84,503}}}$$

NOTE: This can also be calculated by treating the payments as an ordinary annuity:

$$PMT = \$50,000; n=2; i=12: PV\ factor = 1.69005.$$

$$\$50,000 \times 1.69005 = \$84,503$$

BRIEF EXERCISE 6-8

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:

<u>Completion Date</u>	<u>Probability</u>	<u>Expected Value</u>
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
		<u><u>\$1,127,500</u></u>

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

BRIEF EXERCISE 6-9

- (a) In this situation, Nair uses the most likely amount as the estimate - \$1,150,000 since there are only two possible outcomes.
- (b) When there is limited information with which to develop a reliable estimate of completion, then no revenue related to the \$150,000 incentive should be recognized until the uncertainty is resolved. Therefore, no revenue of the incentive is recognized until the completion of the contract.

BRIEF EXERCISE 6-10

January 2, 2017

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

Revenue Recognized in 2017

Sales revenue	\$ 10,000	
Interest income (\$11,000 – \$10,000).....		<u>1,000</u>
Total revenue		<u>\$ 11,000</u>

BRIEF EXERCISE 6-11

Parnevik should record revenue of \$660,000 on March 1, 2017, which is the fair value of the inventory in this case. Parnevik is also financing this purchase and records interest income on the note over the 5-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 income of \$55,000 ($10\% \times \$660,000 \times 10/12$) at December 31, 2017.

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

March 1, 2017

Notes Receivable.....	660,000	
Sales Revenue.....		660,000
Cost of Goods Sold	400,000	
Inventory.....		400,000

- (b) Parnevik makes the following entry to record interest income for 2017.

December 31, 2017

Notes Receivable.....	55,000	
Interest Income ($10\% \times \$660,000 \times 10/12$).....		55,000

BRIEF EXERCISE 6-12

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

Manual reduces revenue by \$6,600 (\$110,000 – \$103,400) because it is probable that it will provide rebates amounting to 6%. This is the most likely outcome. As a result, Manual recognized revenue of \$103,400.

BRIEF EXERCISE 6-13

January income	<u>\$ 0</u>
February income (\$4,000 – \$3,000) X 50%.....	<u>\$500</u>
March income (\$4,000 – \$3,000) X 30%	<u>\$300</u>
April income (\$4,000 – \$3,000) X 20%.....	<u>\$200</u>

BRIEF EXERCISE 6-14

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 \$33,333 [$\$200,000 \times 6/36$].**
- (b) If not interdependent, license revenue of \$125,000 is recognized at delivery and service revenue (for 6 months). Revenue of \$137,500 ($\$125,000 + [\$75,000 \times 6/36]$) is recognized, based on estimated standalone values.**

BRIEF EXERCISE 6-15

July 1, 2017

No entry – neither party has performed under the contract.

On September 1, 2017, Geraths has two performance obligations: (1) the delivery of the windows and (2) the installation of the windows.

Windows	\$2,000
Installation	600
Total	<u>\$2,600</u>

Allocation

Windows (\$2,000 ÷ \$2,600) X \$2,400 =	\$1,846
Installation (\$600 ÷ \$2,600) X \$2,400 =	554
Revenue recognized	<u>\$2,400</u>

(rounded to nearest dollar)

Geraths makes the following entries for delivery and installation.

September 1, 2017

Cash	2,000	
Accounts Receivable	400	
 Unearned Revenue		554
 Sales Revenue		1,846
Cost of Goods Sold.....	1,100	
 Inventory		1,100

(Windows delivered, performance obligation for installation recorded)

October 15, 2017

Cash	400	
Unearned 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.

BRIEF EXERCISE 6-16**(a) July 1, 2017****No entry – neither party has performed under the contract.****On September 1, 2017, 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)]	<u>480</u>
Total	<u>\$2,480</u>

Allocation

Windows (\$2,000 ÷ \$2,480) X \$2,400 =	\$1,935
Installation (\$480 ÷ \$2,480) X \$2,400 =	<u>465</u>
Revenue recognized	<u>\$2,400</u>
(rounded to nearest dollar)	

Geraths makes the following entries for delivery and installation.**September 1, 2017**

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

(Windows delivered, performance obligation for installation recorded)

BRIEF EXERCISE 6-16 (CONTINUED)**(a) (continued)****October 15, 2017**

Cash	400	
Unearned Revenue - Installation	465	
Service Revenue - Installation		465
Accounts Receivable		400

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

- b) If Geraths 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, 2017

Cash	2,000	
Accounts Receivable	400	
Unearned Revenue - Installation		400
Sales Revenue		2,000
Cost of Goods Sold.....	1,100	
Inventory		1,100

(Windows delivered, performance obligation for installation recorded)

October 15, 2017

Cash	400	
Unearned Revenue - Installation	400	
Service Revenue - Installation		400
Accounts Receivable		400

BRIEF EXERCISE 6-17

Note: the suggested solution below outlines the main elements in the earnings process. Additional intermediary steps could also be valid.

- (a) The earnings process consists of the following steps: purchase of necessary raw materials, manufacture of the equipment, and sale to customer. The warranty is not part of the earnings process for the manufacturer – it is a separate arrangement with another vendor.**
- (b) The earnings process consists of the following steps: purchase of inventory, receipt of sales order from online customer, payment received from customer (coincident with sales order since via credit card), and shipment to customer.**
- (c) The earnings process consists of the following steps: installing the necessary underground cables and connections for the neighbourhood (occurs during construction of the housing complex so previously done), installing connections to the customer's house (previously done for prior homeowner), activating the account for the existing homeowner, providing monthly service, billing for monthly service, and receiving payment from customer for monthly service.**

BRIEF EXERCISE 6-18

Under the earnings approach, the concern is only about recognizing revenue from the sales contract.

- (a) Revenue would be recorded when the customer purchases the equipment. The risks and rewards of ownership transfer at this point since the customer picks up the equipment upon purchase. At this point, there is no remaining uncertainty and the seller has completed its performance obligations. No accrual is required for warranty in this situation since these obligations will be honoured by another company.**

- (b) Revenue would be recognized when the books are delivered to the customer. At this point, there is no remaining uncertainty and the seller has completed its performance obligations.**

- (c) Assuming there are no separately identifiable services other than the monthly service, revenue would be recognized monthly as the cable service is provided to the customer. The wiring was previously done and anything the company has to do to activate the account is not likely to be a separately identifiable service.**

BRIEF EXERCISE 6-19**(a) Inventoriable costs:**

500 units shipped at cost of \$100 each.....	\$50,000
Freight	<u>1,250</u>
Total inventoriable cost	<u>\$51,250</u>
80 units on hand (80/500 X \$51,250).....	<u>\$ 8,200</u>

(b) Calculation of consignment profit:

Revenue from consignment sales (420 X \$160) ...	\$67,200
Cost of goods sold (420/500 X \$51,250).....	(43,050)
Commission expense (20% X \$67,200)	<u>(13,440)</u>
Profit on consignment sales.....	<u>\$10,710</u>

(c) Remittance of consignee:

Consignment sales.....	\$67,200
Less: Commission revenue	<u>(13,440)</u>
Remittance from consignee.....	<u>\$53,760</u>

BRIEF EXERCISE 6-20**(a) July 10, 2017**

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**

(b) October 10, 2017

Refund Liability	78,000	
Accounts Receivable		78,000
Inventory	62,400*	
Estimated Inventory Returns		62,400

***(\$560,000 ÷ \$700,000) X \$78,000**

Refund Liability.....	27,000	
Sales Revenue.....		
27,000		

Cost of Goods Sold.....	21,600	
Estimated Inventory Returns.....		
21,600		

(must be adjusted since right of return period is now over)

BRIEF EXERCISE 6-21

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

- (a) Revenue of \$5,800 ($\20×290 [300-10]) products expected not to be returned)
- (b) A refund liability for \$200 ($\20 refund \times 10 products expected to be returned)
- (c) An asset of \$120 ($\12×10 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 ($\12×290). The journal entries to record the sale and related cost of goods sold are as follows:

Cash	6,000	
Sales Revenue		5,800
Refund Liability.....		200
Cost of Goods Sold.....	3,480	
Estimated Inventory Returns	120	
Inventory (300 \times \$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 6-22

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 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, 2017		
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, 2017		
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.

BRIEF EXERCISE 6-23

Accounts Payable (ShipAway Cruise Lines)..	70,000	
Commission Revenue (\$70,000 X 6%).....		4,200
Cash		65,800

BRIEF EXERCISE 6-24

Cash	18,850*	
Advertising Expense.....	500	
Commission Expense.....	2,150	
Revenue from Consignment Sales.....		21,500

* $[\$21,500 - \$500 - (\$21,500 \times 10\%)]$

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

BRIEF EXERCISE 6-25

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

July 1, 2017

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

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). The warranty revenue is recognized over time since the customer is receiving the benefit over time (i.e. insurance-type protection). 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 6-26

No entry is required on May 1, 2017 because neither party has performed on the contract. On June 15, 2017, 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, 2017, Mount records the following entry.

June 15, 2017

Cash	25,000	
Unearned Revenue		25,000

On satisfying the performance obligation on September 30, 2017, Mount records the following entry

September 30, 2017

Unearned Revenue	25,000	
Sales Revenue		25,000

Note: A cost of goods sold entry would also be required on this date.

BRIEF EXERCISE 6-27

The fees (including initiation fee and subsequent renewals) may be viewed as single performance obligation. Although the initiation fee allows access (a distinct good or service), it is not distinct within the contract since access is required in order to continue to use the facility. This should be reflected in the revenue recognized in all four periods since the customer receives and consumes the benefits over time. In this situation, in the total transaction price is \$280 $([(\$5 \times 12) \times 3] + \$100)$. This is the most likely amount and the amount of consideration that the entity is expecting to receive. In the first year (2017), BlueBox would report revenue of \$70 $(\$280 \div 4)$.

*** BRIEF EXERCISE 6-28****To record costs:**

Contract Asset/Liability	1,700,000
Materials, Cash, Payables.....	1,700,000

To record progress billings:

Accounts Receivable	1,200,000
Contract Asset/Liability.....	1,200,000

(since the contract is non-cancellable and the billings non-refundable this represents an unconditional right to receive the cash and therefore the company records as accounts receivable)

To record collections:

Cash	960,000
Accounts Receivable	960,000

To record revenues:

Contract Asset/Liability	2,380,000
Revenue from Long-Term Contracts.....	2,380,000*

***[(\$1,700,000 ÷ (\$1,700,000 + \$3,300,000))] = 34%**
(\$7,000,000 X 34% = \$2,380,000)

To record expenses:

Construction Expenses	1,700,000
Contract Asset/Liability.....	1,700,000

*** BRIEF EXERCISE 6-29****Current Assets**

Accounts Receivable	\$240,000
Contract Asset - net (\$1,715,000 - \$1,000,000)	715,000

Note that alternate terminology may be used instead of contract asset. Some companies might refer to this as construction in process (representing the cost of the work performed to date) and billings (representing the amounts billed to date).

BRIEF EXERCISE 6-30 (30-35 minutes)(a) **Gross profit recognized in:****Percentage-of-Completion (Cost-to-Cost Basis)**
(\$000 omitted)

	<u>2017</u>	<u>2018</u>	<u>2019</u>
Contract price: (A)	<u>\$4,200</u>	<u>\$4,200</u>	<u>\$4,200</u>
Costs:			
Opening balance of costs	0	600	2,100
Costs incurred during the year	<u>600</u>	<u>1,500</u>	<u>2,000</u>
Costs to date (B)	600	2,100	4,100
Estimated costs to complete	<u>3,150</u>	<u>2,100</u>	<u>0</u>
Estimated total costs (C)	<u>3,750</u>	<u>4,200</u>	<u>4,100</u>
Estimated total gross profit	450	0	100
Percent complete (B/C)	16.00%*	50.00%**	100%
Revenue to date (A x % complete)	672	2,100	4,200
Less previously recognized revenue	<u>0</u>	<u>(672)</u>	<u>(2,100)</u>
Revenue for the year (D)	<u>672</u>	<u>1,428</u>	<u>2,100</u>
Construction costs for the year (E)	600	1,500	2,000
Gross profit (loss) for the year (D-E)	<u>\$72</u>	<u>\$(72)</u>	<u>\$100</u>

* $\$600,000 \div \$3,750,000$ ** $\$2,100,000 \div \$4,200,000$

BRIEF EXERCISE 6-30 (CONTINUED)**(b)****2018:**

Construction Expenses	1,500,000	
 Contract Asset/Liability.....		72,000
 Revenue from Long-Term Contracts [from (a)]...		1,428,000

Under the percentage-of-completion method, the increase in costs requires an adjustment in the current period for the excess profit that was recognized on the project in prior years.

(c) Using the Completed-Contract Method:**Gross profit recognized in:**

	<u>2017</u>	<u>2018</u>	<u>2019</u>
Gross profit (loss)	\$ -0-	\$ -0-	\$100,000

Under the completed-contract method, when cost estimates at the end of the period indicate a loss will result once the contract is completed, that entire loss must be recognized in the current period. In this case – the contract is still felt to be profitable in 2018 so no loss is recognized.

SOLUTIONS TO EXERCISES

EXERCISE 6-1 (20-25 minutes)

- 1. A service is being sold – Costco will provide the customer with access to the store and merchandise for one year.**
- 2. A combination of goods and services is being sold – DOT is providing goods and financing services for one year.**
- 3. A service is being sold – Toronto Blue Jays is providing entertainment services for April 1 through October.**
- 4. A service is being sold – CIBC is providing financing services (a loan) for two years.**
- 5. A service is being sold – Seneca is providing educational services for September to December.**
- 6. A good is being sold – Sears is providing the sweater.**
- 7. A combination of goods and services is being sold – Hometown is providing goods and warranty service.**
- 8. A service is being sold - Premier Health Clubs is in business to provide health club facilities and services to members.**

EXERCISE 6-2 (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 Discounts Forfeited		10,000
Accounts Receivable		600,000

EXERCISE 6-3 (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. Interest revenue of \$36,000 will be earned over the next 2 years.**

EXERCISE 6-4 (10–15 minutes)

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

(b)	December 20, 2017	
Accounts Receivable	10,000	
Revenue		10,000
	January 15, 2018	
Cash	10,000	
Accounts Receivable		10,000

EXERCISE 6-5 (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, 2017

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 behaviour). 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 6-6 (15–20 minutes)

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

June 3, 2017

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

* $(\$5,600 \div \$8,000) \times \$800$

The journal entries to record the return is as follows.

June 5, 2017

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, 2017

Delivery Expense	24	
Cash		24

EXERCISE 6-6 (CONTINUED)**(a) (continued)**

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

June 12, 2017

Cash	7,546	
Sales Discounts (2% X \$7,700*)	154	
Accounts Receivable		7,700
*\$8,000 – \$300		

(b) August 5, 2017

Cash	7,700	
Accounts Receivable		7,700

EXERCISE 6-7 (15–20 minutes)**(a) December 31, 2017**

Cash	240,000	
Unearned Rent Revenue		
(2018 slips – 300 X \$800)		240,000

December 31, 2018

Cash	152,000	
Unearned Rent Revenue		
[2019 slips – 200 X \$800 X (1.00 – .05)]		152,000

Cash	38,400	
Unearned Rent Revenue		
[2020 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, or the saving on interest costs on loans to finance the dock repairs. On a present value basis, the granting of these discounts seems ill-advised unless interest rates were to skyrocket so that interest income would offset the discounts provided or because costs for dock repairs is expected to increase significantly.

EXERCISE 6-8 (25–30 minutes)**(a) January 2, 2017**

Cash	150,000	
Unearned Revenue		150,000
(To record upfront payment for sales of products A and B)		

December 31, 2017

Interest Expense (\$150,000 X 6%)	9,000	
Interest Payable.....		9,000
(To record interest on the contract liability)		

(b) December 31, 2018

Interest Expense ([\$150,000 + \$9,000] X 6%).	9,540	
Interest Payable.....		9,540
(To record interest on the contract liability)		

(c) January 2, 2019

Unearned Revenue.....	37,500	
Interest Payable ([\$9,000 + \$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 leading to recognition of sales revenue of \$150,551.

Unearned Revenue Balance after two years on Product B.....	\$126,405*
Interest accrued for 3 years (\$126,405 X [1.06 ³ – 1]).....	<u>24,146</u>
	<u>\$150,551</u>

*\$112,500 + ([\$9,000 + \$9,540] X 75%)

EXERCISE 6-8 (CONTINUED)**(c) (continued)**

Using Excel or using a financial calculator the future value of the Product B at January 2, 2022 is:

Using a financial calculator:

PV	\$ 112,500	
I	6%	
N	5	
PMT	0	
FV	?	Yields \$ 150,550.38
Type	0	

Excel formula: =FV(rate,nper,pmt,pv,type)

EXERCISE 6-9 (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 Revenue.....		40,000

(b) First Quarter ending March 31, 2017

Sales revenue	\$370,000
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The revenue for installation will be recognized in the second quarter.

EXERCISE 6-10 (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.

$$\begin{aligned} \text{Equipment } (\$1,000,000 / \$1,050,000) \times \$1,000,000 &= \\ \$952,381 & \\ \text{Installation } (\$50,000 / \$1,050,000) \times \$1,000,000 &= \$ \\ 47,619 & \end{aligned}$$

- (b) Crankshaft makes the following entries.

September 30, 2017

Cash	1,000,000	
Service Revenue - Installation.....		47,619
Sales Revenue.....		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, 2017 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 6-11 (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, 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.

$$\begin{aligned} \text{Equipment } (& \$1,000,000 / \$1,045,000) \times \$1,000,000 = \$956,938 \\ \text{Installation } (& \$45,000 / \$1,045,000) \times \$1,000,000 = \$43,062 \end{aligned}$$

- (b) Crankshaft makes the following entries.

September 30, 2017

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

EXERCISE 6-12 (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	= \$ <u>780</u>
Installation	\$ 50*/\$1,025	X \$1,000	= \$ <u>49</u>
Maintenance	\$ 175**/\$1,025	X \$1,000	= \$ <u>171</u>
Total			<u>\$1,025</u>

$$*\$50 = \$850 - \$800$$

$$**\$175 = \$975 - \$800$$

EXERCISE 6-13 (10–15 minutes)

- (a) No entry – neither party has performed on the contract on January 1, 2017.
- (b) The entries to record the sale and related cost of goods sold of the wiring base is as follows.

February 5, 2017

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, 2017

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

EXERCISE 6-14 (10–15 minutes)**(a) May 1, 2017**

No entry – neither party has performed on May 1, 2017.

(b) May 15, 2017

Cash	900	
Unearned Revenue		900

(c) May 31, 2017

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

EXERCISE 6-15 (15–20 minutes)**(a) April 2, 2017**

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) June 1, 2017

Refund Liability	100,000	
Accounts Receivable		100,000

Inventory	53,333*	
Estimated Inventory Returns		53,333

*** ($\$800,000 \div \$1,500,000$) X \$100,000**

(c) If Organic Growth is unable to estimate returns, it defers recognition of revenue until the return period expires on August 2, 2017.

EXERCISE 6-16 (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.

(c) **July 1, 2017**

Accounts Receivable	15,000,000
Refund Liability (\$15,000,000 X 12%).....	1,800,000
Sales Revenue.....	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

(d) **October 3, 2017**

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 6-17 (15–20 minutes)

- (a) In this case, due to the agreement to repurchase the equipment, Cramer continues to have the 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 to financing are as follows.

July 1, 2017

Cash	40,000	
Liabilities		40,000

- (b) **December 31, 2017**

Interest Expense	1,200	
Liabilities ($\$40,000 \times 6\% \times 1/2$)		1,200

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

- (c) **June 30, 2018**

Interest Expense	1,200	
Liabilities ($\$40,000 \times 6\% \times 1/2$).....		1,200
Liabilities	42,400	
Cash ($\$40,000 + \$1,200 + \$1,200$)		42,400

EXERCISE 6-18 (10-15 minutes)**(a) March 1, 2017**

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	
Liabilities		200,000

(To record repurchase agreement with Werner Metal Company)

(b) May 1, 2017

Interest Expense (\$200,000 X 2%)	4,000	
Liabilities	200,000	
Cash		204,000

(To record payment plus interest on financing)

EXERCISE 6-19 (40-45 minutes)

a) Under the earnings approach, revenue recognition depends on the company's earnings process and how a company adds value for its customers. Revenue is recognized in a manner consistent with the earnings process and when (for sale of goods) risks and rewards of ownership are transferred to the customer; the vendor has no continuing involvement in, nor effective control over, the goods sold; costs and revenue can be measured reliably; and collection is probable. This approach focuses on measuring revenues and costs and appropriately reflecting these in the statement of income. This method requires that the revenue be measurable and collectible before recognition can occur.

b) Revenue would be recognized and recorded as follows:

<p>1. As this represents a sale of services, the focus for revenue recognition is performance. The earnings process here is continuous for the one-year term. The percentage-of-completion method should be used and revenue would be recorded evenly over the one-year term.</p>	<p>At time of membership purchase: Dr. Cash Cr. Unearned Revenue</p> <p>Each month over the 1-year term: Dr. Unearned Revenue Cr. Service Revenue</p>
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EXERCISE 6-19 (CONTINUED)
(b) (continued)

<p>2. This represents a bundled sale of goods and services.</p> <ul style="list-style-type: none"> • First, as this is a non-interest bearing receivable, the fair value of the furniture sold may be determined by discounting to reflect the time value of money. • For the sale of goods, revenue is generally recognized when the critical event in the earnings process is completed. This normally occurs on delivery since the risks and rewards transfer at this point. • The interest portion will be accrued over the one-year term. 	<p>At time of delivery: Dr. Accounts Receivable Cr. Sales Revenue</p> <p>Over the one-year term of the loan: Dr. Interest Receivable Cr. Interest Income</p> <p>Upon final payment: Dr. Cash Cr. Accounts Receivable Cr. Interest Receivable</p>
<p>3. This is a sale of services. The earnings process here is continuous for the seven-month term. Fee revenue for performances, events, and so on should be recognized when the event takes place. When a subscription is sold for a pre-set number of events, the total fee should be allocated to each event. Therefore, revenue should be recognized on a per-game basis over the season from April to October.</p>	<p>At time of ticket purchase: Dr. Cash Cr. Unearned Revenue</p> <p>As each game is played during the season: Dr. Unearned Revenue Cr. Service Revenue</p>
<p>4. This is sale of services. The earnings process here is continuous and interest income should be accrued evenly over the two-year term of the loan.</p>	<p>At time loan is provided: Dr. Notes Receivable Cr. Cash</p> <p>Over the two year loan term: Dr. Interest Receivable Cr. Interest Income</p> <p>Upon final payment: Dr. Cash Cr. Notes Receivable Cr. Interest Receivable</p>

EXERCISE 6-19 (CONTINUED)
(b) (continued)

<p>5. This is sale of services. The earnings process here is continuous for the four-month term. Revenue should be recognized over the instructional term, beginning in September.</p>	<p>At time of fee payment in September: Dr. Cash Cr. Unearned Revenue</p> <p>Over four-month term: Dr. Unearned Revenue Cr. Service Revenue</p>
<p>6. For the sale of goods, revenue is generally recognized when the critical event in the earnings process is completed. This normally occurs on delivery, since the risks and rewards transfer at this point. Revenue would be recorded upon delivery in September, as long as any returns could be estimated.</p>	<p>At time of delivery in September Dr. Accounts Receivable Cr. Sales Revenue</p> <p>At time of payment in October: Dr. Cash Cr. Accounts Receivable</p>
<p>7. Revenue would be recorded for the machine upon delivery in June. The warranty is a separate service (or bundled service) that would be earned over the five-year term.</p>	<p>At time of delivery in June Dr. Cash Cr. Sales Revenue Cr. Warranty Liability</p> <p>Over the 5-year period Dr. Warranty Liability Cr. Warranty Revenue</p>

EXERCISE 6-19 (CONTINUED)
(b) (continued)

8. As this represents a sale of services, the focus for revenue recognition is performance.

- **Assuming Premier is not in the business of providing medical services, the initiation fee represents a cost recovery of a requirement for membership. ***
- **The earnings process for the ongoing fee is continuous. The percentage-of-completion method should be used and revenue would be recorded evenly over the period of membership.**

***If Premier was also in the medical services business, a case could be made for allocating the total receipts for both the initiation and the monthly fee (over the term of each contract); recognition of the portion allocated to the medical assessment on completion of that service; and recognition of the remainder evenly over the period of the contract.**

At time of medical assessment (receipt of initiation fees):

Dr. Cash

Cr. Sales Revenue

Dr. Expenses

Cr. Cash/ Accts Payable

Over the membership period:

Dr. Cash

Cr. Service Revenue

EXERCISE 6-20 (15-20 minutes)

- (a) Customer acceptance provisions, such as extended trial periods and goods shipped subject to approval, are examples of concessionary terms. Concessionary terms may create additional performance obligations, and if the concessionary terms are more lenient than usual, they may complicate the accounting. Customer acceptance provisions that are more lenient than usual may mean that risks and rewards of ownership have not yet transferred to the customer, or that the vendor has continuing involvement in, or effective control over, the goods sold. Customer acceptance provisions must be carefully analyzed to determine when revenue can be recognized.
- (b) Revenue would be recognized as follows:
1. For sale of goods, risks and rewards transfer when the customer accepts the books or the trial period lapses.
 2. Risks and rewards transfer at point of sale. It would be appropriate to recognize the sale as long as a reasonable estimate of sales returns could be accrued at the same time. If no reasonable amount for the expected sales returns can be established from historical experience, then the sale should be postponed until the return privilege of 30 days expires.
 3. For Shivani Inc., the risks and rewards do not transfer until the customer's specifications are fulfilled. These specifications are not subjective and are instead very specific to the customer's needs. Shivani should only recognize revenue when the specifications are achieved and the goods are delivered (if highly likely that the delivered goods are acceptable) or when the customer indicates acceptance of the goods by signing off (if there is uncertainty about whether the specifications have been met).

EXERCISE 6-20 (CONTINUED)

- (c) If the company advertises that “customer satisfaction is guaranteed”, a customer may expect that the company will accept returns even beyond the 30-day contractual refund period in order to honour its advertised statement. The company may have a constructive obligation as a result of signalling to customers that returns may be honoured beyond the 30-day contractual refund period. This may result in a performance obligation that needs to be reported on the balance sheet.**

EXERCISE 6-21 (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.
- (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 6-22 (15–20 minutes)**(a) Inventoriable costs:**

80 units shipped at cost of \$500 each	\$40,000
Freight.....	740
Total inventoriable cost	<u>\$40,740</u>
40 units on hand (40/80 X \$40,740)	<u>\$20,370</u>

(b) Computation of consignment profit:

Consignment sales (40 X \$750).....	\$30,000
Cost of units sold (40/80 X \$40,740)	(20,370)
Commission charged by consignee (6% X \$30,000)	(1,800)
Advertising	(200)
Installation.....	<u>(320)</u>
Profit on consignment sales.....	<u>\$ 7,310</u>

(c) Remittance of consignee:

Consignment sales.....	\$30,000
Less: Commissions.....	\$1,800
Advertising	200
Installation	<u>320</u>
Remittance from consignee.....	<u>\$27,680</u>

EXERCISE 6-23 (15–20 minutes)**(a)**

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

(b) Grando should recognize \$400 of warranty revenue in 2019 and 2020.

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

EXERCISE 6-24 (15–20 minutes)**(a) October 1, 2017**

Cash (or Accounts Receivable).....	3,600	
Warranty Expense.....	200	
Warranty Liability (assurance-type warranty)		200
Unearned Warranty 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 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 Unearned Revenue 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 6-25 (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. These should be capitalized and depreciated by Rex's Reclaimers.

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

EXERCISE 6-26 (10–15 minutes)

- (a) If the contract is for less than 1 year, 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 statement of income. If there is significant doubt about collectibility at the contract's inception, 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 6-27 (20–25 minutes)****(a) Gross profit recognized in:**

	2017		2018		2019	
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			

*** EXERCISE 6-27 (Continued)****(b)**

2018		
Contract Asset/Liability (\$825,000 – \$400,000)	425,000	
Materials, Cash, Payables, etc.....		425,000
Accounts Receivable (\$900,000 – \$300,000) .	600,000	
Contract Asset/Liability.....		600,000
Cash (\$810,000 – \$270,000)	540,000	
Accounts Receivable.....		540,000
Contract Asset/Liability	560,000	
Revenue from Long-Term Contracts.....		560,000*
*\$1,600,000 X (75% – 40%)		
Construction Expenses	425,000	
Contract Asset/Liability		425,000

(c) Gross profit recognized in:

Gross profit	<u>2017</u>	<u>2018</u>	<u>2019</u>
	\$-0-	\$-0-	\$530,000*

***\$1,600,000 – \$1,070,000**

*** EXERCISE 6-28 (10–15 minutes)**

DOUGHERTY INC.
Computation of Gross Profit to be
Recognized on Uncompleted Contract
Year Ended December 31, 2017

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

*** EXERCISE 6-29 (15–20 minutes)**

(a) 2017: $\frac{\$640,000}{\$640,000 + \$960,000} \times \$2,200,000 = \underline{\underline{\$880,000}}$

2018: \$2,200,000 (contract price) minus \$880,000 (revenue recognized in 2017) = \$1,320,000 (revenue recognized in 2018).

(b) All \$2,200,000 of the contract price is recognized as revenue in 2018.

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

Contract Asset/Liability	640,000	
Materials, Cash, Payables, etc.....		640,000
Accounts Receivable	420,000	
Contract Asset/Liability		420,000
Cash	350,000	
Accounts Receivable		350,000
To record revenues:		
Contract Asset/Liability	880,000	
Revenue from Long-Term Contracts.....		880,000*
*\$2,200,000 X [(\$640,000 ÷ (\$640,000 + \$960,000))]		
To record expenses:		
Construction Expenses	640,000	
Construction Asset/Liability		640,000

*** EXERCISE 6-30 (15–25 minutes)**

- (a) No computation of gross profit necessary as no gross profit to be recognized prior to completion of contract.

Construction costs incurred during the year	\$ 1,185,800
Partial billings on contract (25% X \$6,000,000)	<u>(1,500,000)</u>
Contract Liability	<u>\$ (314,200)</u>

(b) Contract price

	\$6,000,000
--	-------------

Costs to date	\$1,185,800	
Estimated costs to complete	<u>4,204,200</u>	
Total		<u>5,390,000</u>

Estimated profit (\$6,000,000 – \$5,390,000)	610,000
% of completion	<u>X 22%*</u>
Gross profit.....	<u>\$ 134,200</u>

* ($\$1,185,800 \div \$5,390,000$)

Revenue recognized (22% X \$6,000,000)	1,320,000
Partial billings on contract (25% X \$6,000,000)	<u>(1,500,000)</u>
Contract Liability	<u>\$ (180,000)</u>

TIME AND PURPOSE OF PROBLEMS

Problem 6-1 (Time 25-35 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 6-2 (Time 50–60 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 6-3 (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 6-4 (Time 35-40 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 6-5 (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 6-6 (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 customer loyalty program. The student is required to allocate the transaction price to the loyalty points and sales revenue for the products and then prepare entries for loyalty points redemptions.

Problem 6-7 (Time 40-45 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 6-8 (Time 25–30 minutes)

Purpose—to provide the student with an opportunity to account for warranty and customer loyalty programs.

TIME AND PURPOSE OF PROBLEMS (CONTINUED)

***Problem 6-9 (Time 30–40 minutes)**

Purpose—to provide the student with an understanding of both the percentage-of-completion and completed-contract 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.

SOLUTIONS TO PROBLEMS

PROBLEM 6-1

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

$$\text{Equipment } (\$7,000 / \$8,500) \times \$8,000 = \$6,588$$

$$\text{Installation } (\$1,500 / \$8,500) \times \$8,000 = \$1,412$$

BBQ Master makes the following entries:

April 20, 2017

Cash	8,000	
Unearned Revenue - Installation.....		1,412
Unearned Revenue - Equipment.....		6,588

May 15, 2017

Unearned Revenue - Installation	1,412	
Unearned Revenue - Equipment	6,588	
Service Revenue - Installation		1,412
Sales Revenue		6,588
Cost of Goods Sold	4,250	
Inventory ($\$425 \times 10$)		4,250

Both the sale of the equipment and the service revenue are recognized once the installation is completed on May 15, 2017.

PROBLEM 6-1 (CONTINUED)

(b) April 17, 2017

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

In this case, BBQ Master should reduce revenue recognized by \$3,360 [$(\$56,000 - (\$280 \times 200) - \$52,640)$] because it is certain that it will provide the discounted price amounting to 6%.

(c) 1. September 1, 2017

Accounts Receivable [$\$20,000 - (3\% \times \$20,000)$]	19,400	
Sales Revenue		19,400
Cost of Goods Sold	11,000	
Inventory ($\$550 \times 20$)		11,000

September 25, 2017

Cash	19,400	
Accounts Receivable		19,400

2. September 1, 2017

Accounts Receivable [$\$20,000 - (3\% \times \$20,000)$]	19,400	
Sales Revenue		19,400
Cost of Goods Sold	11,000	
Inventory ($\$550 \times 20$)		11,000

October 15, 2017

Cash ($\$1,000 \times 20$)	20,000	
Accounts Receivable		19,400
Sales Discounts Forfeited ($3\% \times \$20,000$)	600	

PROBLEM 6-1 (CONTINUED)

(d)

October 1, 2017

Notes Receivable	4,000	
Sales Revenue ($\$5,324 \times .75132$ [PV $i=10\%$, $n=3$])		4,000
Cost of Goods Sold	2,700	
Inventory.....		2,700

December 31, 2017

Notes Receivable	100	
Interest Income ($10\% \times 3/12 \times \$4,000$)		100

BBQ Master records revenue of \$4,000 on October 1, 2017, 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.

PROBLEM 6-2

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

June 1, 2017

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, 2017

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

2. August 1, 2017

Unearned 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.

PROBLEM 6-2 (CONTINUED)

- (c) The introduction of 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:

$$\begin{array}{r}
 60\% \text{ chance of } \$594,000 \text{ } (\$540,000 \times 1.10) = \$356,400 \\
 40\% \text{ chance of } \$540,000 = \underline{216,000} \\
 \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \underline{\underline{\$572,400}}
 \end{array}$$

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, 2017

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

July 1, 2017

Unearned 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

PROBLEM 6-2 (CONTINUED)

- (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.

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

Economy makes the following entries.

February 1, 2017

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

April 1, 2017

Unearned Revenue	72,000	
Accounts Receivable (\$720,000 – \$72,000)	648,000	
Sales Revenue (\$1,800 X 400)		720,000
Cost of Goods Sold	374,000	
Inventory (400 X [\$400 + \$275 + \$260])		374,000

PROBLEM 6-3

- (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 leave the factory to be 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 2017	\$7,000,000
Less: Refund liability (20%)	<u>1,400,000</u>
Net sales—revenue to be recognized in fiscal 2017	<u>\$5,600,000</u>

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 2016 sales has no impact on fiscal 2017 revenue. The 21 percent of returns on the initial \$5,500,000 of 2017 sales confirms that 20 percent of sales will provide a reasonable estimate.

PROBLEM 6-3 (CONTINUED)

(b) (continued)

Ankiel Securities Division

Revenue for fiscal 2017 = \$5,200,000.

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 statement of income.

Depp Advisory Division

Revenue for 1st Quarter of fiscal 2017 = \$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 calculation and recording of any bonus payment should be deferred until the end of the year when the performance is known, as it is subject to substantial volatility during the year.

PROBLEM 6-4**(a) Sales with financing**

January 1, 2017

Notes Receivable	4,450	
Sales Revenue ($\$5,000 \times .8900$ [PV $n=2$; $i=6\%$])		4,450
Cost of Goods Sold	4,000	
Inventory		4,000
Total revenue for Colbert:		
Sales revenue	\$4,450	
Interest income ($\$4,450 \times 6\%$)	<u>267</u>	
Total		<u>\$4,717</u>

(b) Gift Cards

March 1, 2017

Cash	2,000	
Unearned Revenue (20 X \$100)		2,000

March 31, 2017

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

April 30, 2017

Unearned Revenue	600	
Sales Revenue (6* X \$100)		600
*(80% less 50%) X 20 cards		
Cost of Goods Sold	480	
Inventory (6 X \$80)		480

PROBLEM 6-4 (CONTINUED)

(b) (continued)

June 30, 2017

Unearned Revenue	100	
Sales Revenue (1* X \$100)		100
*(85% less 80%) X 20 cards		
Cost of Goods Sold	80	
Inventory (1 X \$80)		80

In addition, an additional entry is made on June 30, 2017 to recognize that 15% of the gift cards (3 cards) will not be redeemed.

June 30, 2017

Unearned 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.

PROBLEM 6-4 (CONTINUED)**(c) Bundle Sales**

Since the paper is delivered later, Colbert has two performance obligations, (1) the printer and the stand and (2) 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, delivered together as follows.

Allocated Amounts

Paper	\$ 175
Printer and Stand (\$5,125 – \$175)	<u>4,950</u>
Total	<u>\$5,125</u>

The journal entries are as follows:

March 1, 2017

Cash	51,250	
Sales Revenue (10 X \$4,950).....		49,500
Unearned Revenue.....		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, 2017

Unearned Revenue	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)		

PROBLEM 6-5

(a) January 1, 2017

Notes Receivable	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

(b) August 10, 2017

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		<u>1,200</u>
Total estimated fair value		<u>\$46,200</u>

PROBLEM 6-5 (CONTINUED)

(c) (continued)

The allocation for a single contract is as follows.

Dryers	\$41,091	$(\$42,000 / \$46,200) \times \$45,200$
Installation	2,935	$(\$3,000 / \$46,200) \times \$45,200$
Maintenance plan	<u>1,174</u>	$(\$1,200 / \$46,200) \times \$45,200$
Total Revenue	<u>\$45,200</u>	

Ritt makes the following entries.

June 20, 2017

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

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

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

October 1, 2017

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

PROBLEM 6-5 (CONTINUED)

(c) (continued)

December 31, 2017

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

(d) Entries for Ritt – the Consignor

April 25, 2017

Inventory on Consignment (60 X \$800)	48,000	
Inventory		48,000

June 30, 2017

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

Entries for Farm Depot - the Consignee

April 25, 2017

No entry – Inventory continues to be controlled by Ritt.

Summary Entry for Consignment Sales

Cash	72,000	
Accounts Payable		64,800
Revenue from Consignment Sales		7,200

June 30, 2017

Accounts Payable	64,800	
Cash		64,800

PROBLEM 6-6

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

	Standalone Allocated	Percent	Transaction	Amounts
	<u>Selling Prices</u>	<u>Allocated</u>	<u>Price</u>	<u>Amounts</u>
Product Purchases	\$300,000	97.56%	\$300,000	\$292,680
Loyalty Points	<u>7,500</u>	2.44%	\$300,000	<u>7,320</u>
	<u>\$307,500</u>			<u>\$300,000</u>

- (b) July 2, 2017

Cash	300,000	
Unearned Revenue – Loyalty Program		7,320
Sales Revenue		292,680
Cost of Goods Sold	171,000	
Inventory		171,000

- (c) At July 31, 2017, the sales revenue recognized as a result of the loyalty points redeemed is \$3,000.

July 31, 2017

Cash	72,000	
Unearned Revenue – Loyalty Program	3,000	
Sales Revenue		75,000
Cost of Goods Sold	39,000	
Inventory		39,000

PROBLEM 6-7

- (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
 $(\$7,200 (\$72 \times 100) \times 2.5771$ [PVOA $n=3, i=8\%$]) = \$18,555

January 2, 2017

Cash ($\$10,000 + \$ 21,445^*$)	31,445	
Notes Receivable	18,555	
Unearned Revenue (100 X \$267)		26,700
Sales Revenue (100 X \$233).....		23,300
Cost of Goods Sold ($\$175 \times 100$).....	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	<u>18,555</u>
	<u>\$21,445</u>

The sale of the tablets (and gross profit) should be recognized once the tablets are delivered on January 2, 2017.

PROBLEM 6-7 (CONTINUED)

(a) (continued)

Amortization Schedule for the Notes Receivable

Date	Cash	Revenue	Amortization	Balance
January 2, 2017				\$18,555
January 2, 2018	\$7,200	\$1,484	\$5,716	12,839
January 2, 2019	7,200	1,027	6,173	6,666
January 2, 2020	7,200	534*	6,666	- 0

* rounding

(b) December 31, 2018

Interest Receivable (\$12,839 X 8%)	1,027	
Interest Income		1,027

(To accrue interest on the note receivable)

Unearned Revenue (\$26,700 ÷ 4)	6,675	
Service Revenue		6,675

(To record revenue for internet service provided in 2018)

(c) December 31, 2019

Interest Receivable (\$6,666 X 8%)	534	
Interest Income		534

(To accrue interest on the note receivable)

Unearned Revenue (\$26,700 ÷ 4)	6,675	
Service Revenue		6,675

(To record revenue for internet service provided in 2019)

PROBLEM 6-7 (CONTINUED)

- (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 (\$250) allocated to the Internet service.

Tablet Tailors makes the following entries.

January 2, 2017

Cash (\$10,000 + \$ 21,445*)	31,445	
Notes Receivable	18,555	
Unearned Revenue (\$250 X 100)		25,000
Sales Revenue		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, 2017. Tablet Tailors will recognize service revenue of \$6,250 ($\$25,000 \div 4$) in each year of the 4-year contract.

PROBLEM 6-8**(a) Warranty Performance Obligations**

1. To transfer 70 specialty winches to customers with a total transaction price of \$21,000.
2. To provide extended warranty services for 29 winches after the assurance warranty period with a value of \$11,600 (29 X \$400) for 2 years.

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

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

(b)

Cash	32,600	
Warranty Expense.....	2,100	
Warranty Liability		2,100
Unearned Warranty Revenue (29 X \$400).	11,600	
Sales Revenue		21,000

To reduce inventory and recognize cost of goods sold:

Cost of Goods Sold	16,000	
Inventory.....		16,000

Hale 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.

PROBLEM 6-8 (CONTINUED)

- (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. Hale allocates the transaction price to the product and the points on a relative standalone selling price basis as follows.

The standalone selling price:

Purchased products:	\$100,000
Estimated points to be redeemed	<u>9,500*</u>
Total Fair Value	<u>\$109,500</u>

* 9,500 points X \$1 per point

The allocation is as follows.

Products ($\$100,000 / \$109,500$) X $\$100,000 = \$91,324$

Bonus points ($\$9,500 / \$109,500$) X $\$100,000 = \$8,676$

To record sales of products subject to bonus points:

Cash.....	100,000	
Unearned Revenue – Loyalty Programs		8,676
Sales Revenue		91,324
Cost of Goods Sold (1–45%) X 100,000.....	55,000	
Inventory.....		55,000

***PROBLEM 6-9**

(a)	2017	2018	2019
Contract price	<u>\$900,000</u>	<u>\$900,000</u>	<u>\$900,000</u>
Less estimated cost:			
Costs to date	270,000	450,000	610,000
Estimated cost to complete	<u>330,000</u>	<u>150,000</u>	<u>—</u>
Estimated total cost	<u>600,000</u>	<u>600,000</u>	<u>610,000</u>
Estimated total gross profit	<u>\$300,000</u>	<u>\$300,000</u>	<u>\$290,000</u>
Gross profit recognized in—			
2017: $\frac{\$270,000}{\$600,000} \times \$300,000 =$	<u>\$135,000</u>		
2018: $\frac{\$450,000}{\$600,000} \times \$300,000 =$		\$225,000	
Less 2017 recognized gross profit		<u>135,000</u>	
Gross profit in 2018		<u>\$ 90,000</u>	
2019: Less 2017–2018 recognized gross profit			<u>225,000</u>
Gross profit in 2019			<u>\$ 65,000</u>

(b) In 2017 and 2018, no gross profit would be recognized.

Total Revenue	\$900,000
Total Construction Expenses	<u>(610,000)</u>
Gross profit recognized in 2019	<u>\$290,000</u>

CASES

See the Case Primer on the Student Website as well as the summary case primer in the front of the text.

CA 6-1 BUDGET VACATIONS

Overview

- Since the company is private – they may use IFRS or ASPE. ASPE is more flexible and less costly to apply. However, the company is thinking of going public, and therefore it might make more sense to apply IFRS since IFRS is required for public companies in Canada.
- The bank would be a major user (since the company is looking for financing to update its facilities) as well as potential future investors if the company goes public.
- The bank is looking at the current ratio as well as the debt to equity ratio and therefore there may be a bias to make these ratios look better.
- The controller must ensure that the statements are transparent and not misleading since the bank and potential investors will be making resource allocation decisions based on this.

Analysis and recommendations

CA 6-1 BUDGET VACATIONS (CONTINUED)**Issue:** Recognize magazine revenue for new customers

Recognize revenue as delivered	Recognize revenues only after the refund privilege has expired
<ul style="list-style-type: none"> - The contract with the customer is to deliver the magazines – representing a performance obligation - Once the magazines are delivered monthly – control passes. - The existence of the right to return means that the consideration is variable and must be estimated using either an expected value method or the most likely amount. It sounds like the company is expecting a large number of new subscriptions so the expected value method might be the best method to use. - The company is able to estimate the potential returns based on data from other competitors and so should set up a separate refund liability. - An asset for returned magazines would not be set up since the used magazine would be of little value. 	<ul style="list-style-type: none"> - The company has little history of cancellation rates given that it has only been operating for 18 months. The amount of consideration is highly susceptible to factors outside the company's control including economic factors, job losses (all which may affect the potential cancellation of the contract). - Thus revenue recognition might be constrained

CA 6-1 BUDGET VACATIONS (CONTINUED)

Recommendation: The company will have to make a decision regarding the revenue recognition but based on the fact that it has already been in business for a year and a half and the fact that industry statistics are available regarding contract cancellations, they could recognize revenues using the expected value method.

Issue: Atlas premium

The atlas promise is a separate performance obligation and must be recorded as unearned revenues. The atlas is a distinct and separate product from the magazine. The amount would be measured as the standalone value of the atlas less the \$2. The company would have to estimate the number of atlases that would be delivered (given at 60%).

Issue: Bill and hold

Recognize revenues when the sale is made	Wait until delivered
<p>The following would have to be met in order to recognize:</p> <ul style="list-style-type: none"> - the reason for holding the inventory is substantive (e.g. perhaps the purchaser has no room in its warehouse) - the magazines must be set aside and ready to ship - the magazines cannot be sold to another customer 	<ul style="list-style-type: none"> - Since this is a new customer – there is no evidence that they will be able to go through with the deal so there is significant uncertainty. - It is unclear as to why the magazines are not being shipped especially since the magazines need to be current in order to sell. - It is unclear as to whether the customer has made any payment and so this contract may be wholly unperformed.

CA 6-1 BUDGET VACATIONS (CONTINUED)

Recommendation: Delay revenue recognition since there is too much uncertainty.

The current ratio (Current Assets ÷ Current Liabilities) will change, but not in the direction the company thinks. As subscriptions are obtained, current assets (cash or accounts receivable) will increase and current liabilities (Unearned Revenue) will increase by the same amount. 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 6-2 ROUGE VALLEY GOLF AND HEALTH CLUB (RVGH)

Overview

The company financial statements will be used to determine bonus payments and therefore, income is important. The controller may have a bias to maximize net income. The controller and assistant controller disagree on the treatment of several items. Care should be taken to ensure that the statements are not biased.

Given that the company is public, GAAP = IFRS, and this is a constraint.

NOTE – the accounting issues are fairly straightforward in this case. The real issue here is the ethical dilemma.

Analysis and recommendations

Issue: Annual membership fees – revenue recognition

The membership fees, which are paid in advance, are sold with a money-back guarantee, allowing a refund of any remaining unused portion of the membership fees. The membership fee gives the member the right to reserve a play time at any of the facilities, but for an additional user fee. As such the membership represents a performance obligation to RVGH not bundled with any other obligation. The membership should be recognized as revenue over the life of the membership. Each month, RVGH earns one-twelfth of the revenue. The recording of the sale of a membership results in a liability for the unearned and potentially refundable portion of the fee. For those membership fees that are financed, interest is recognized as time passes at the rate of 8 percent per annum.

Separate user fees for reserved course time should be recorded as revenue as the members use the course.

Although the controller would prefer immediate recognition, there is no compelling support for this.

Issue: Coupons

As with the membership fees, the services delivered when customers use coupons represent a separate contract between RVGH and its customers. Revenue from the sale of coupon books should be recorded when the coupons are redeemed; i.e., when members attend aerobics classes.

CA 6-2 RVGH (CONTINUED)

At year-end, an adjustment should be made to recognize the revenue from unused coupons that have expired. Once the company builds a bit of history, it may take a percentage of the estimated unredeemable coupon revenue into income over the term when the coupons are available for redemption.

Since the company currently has no history, GAAP supports recognition of revenue as earned and the rest when the coupons expire. There is no compelling support for earlier recognition.

Issue: Revenue recognition from the machine sales

RVGH has not provided any goods or service when the down payment for equipment purchases is received. The down payment should be treated as Unearned Sales Revenue until delivery of the equipment is made.

Revenue would be recorded for the machine upon delivery. The warranty is a type of assurance warranty – i.e. assuring that the machine is of good quality. The estimated cost of the assurance warranty would be accrued and booked to a Warranty Liability account. There is no basis for deferring recognizing possible warranty costs. In addition, the equipment purchase must be recognized when control over the machine passes to the customer.

Ethical Issues:

Karen Browning may wish to speak to Jaymie Hogan again regarding the GAAP violations to ensure that she understands her position. In order to resolve the situation, Browning should follow the policies established by RVGH for the resolution of ethical conflicts. If the company does not have such a policy or the policy does not resolve the conflict, Browning should consider the following course of action:

CA 6-2 RVGH (CONTINUED)

1. Since her immediate supervisor is involved in the situation, Browning should take the issue to the next higher managerial level. Browning need not inform Hogan of this step because of her involvement.
2. If there is no resolution, Browning should continue to present the problem to successively higher levels of internal review; i.e., audit committee, Board of Directors.
3. Browning should have a confidential discussion of her options with an objective advisor to obtain a clearer understanding of possible courses of action.
4. After exhausting all levels of internal review without resolution, Browning may have no other recourse than to resign from her position. Upon doing so, she should submit an informative memorandum to an appropriate representative of the organization.
5. Browning should not communicate with individuals outside of the organization about this situation unless legally prescribed to do so.

If RVGH decided it wanted to become a private company, and choose to use ASPE, there could be differences in the way it which it accounted for revenues. Note that as a private company – it could continue to use IFRS. While IFRS uses a contract based approach, ASPE uses an earning approach. The reasoning as to when revenues are recognized would differ but likely the end result would be the same.

Issue: Annual membership dues

Under the earning approach the membership revenues would be recognized over the year since in order to earn the revenues, RVGH must provide access to and maintain the facilities. Revenues must be determined to be collectible before revenues are recognized. Revenue would be recognized over the 12 month period (same as under IFRS).

Separate user fees for reserved course time should be recorded as revenue as the members use the course (same as under IFRS).

The timing of the recognition would be the same as in IFRS for the interest revenue earned from financing the membership fees, i.e. over time.

CA 6-2 RVGH (CONTINUED)

Issue: Coupons

The performance of the service provided when the coupons are redeemed would result in the recognition of revenue when customers received the service (same as IFRS). The collection risk is not an issue as the cash was received when the coupons were sold.

Issue: Revenue recognition from the machine sales

For the elliptical machine sales, the critical event in the transaction that allows the sale to be recognized is the transfer of the possession of the goods, indicated by the F.O.B. terms. It is at this point when the risks and rewards of ownership have passed. Finally, with the machine sales comes a one year warranty. Since the services are not yet rendered, a liability is accrued to address the cost of servicing the warranty, estimated in this case at 4 % of the sales price.

INTEGRATED CASES

IC 6-1 STANDFORD PHARMACEUTICALS INC. (SP)

Note that this case includes some issues where the technical material will be covered in more detail later on in the text. The case may be used to encourage students to do some advanced research on their own or the students might be encouraged to use basic analysis using the conceptual framework. Issues may be discussed in more general terms including whether to recognize debt or liabilities, how to measure assets and whether to disclose a problem or not. The solution below takes the latter route.

Overview

The company is experiencing cash flow difficulties (as evidenced by increased competition, inability to pay bonuses, and rapid expansion) and is currently negotiating to increase its line of credit. The bank has concerns about its liquidity and solvency and will likely focus on cash flows, current ratio and debt to equity ratio in deciding whether to lend more money. Any issues that affect these numbers are therefore important. The auditor would like to assess audit risk and therefore will want to look at controversial financial reporting issues. Since the company is barely breaking even, anything that affects net income will be considered material. The CFO will be biased to show higher net income since he is worried that the share price will fall. He will also want to project a more stable cash flow picture in order to maximize stock prices for management stock options. The case implies that the entity is a public company (worried about the share prices falling) and therefore IFRS is a constraint. The main users will want more relevant and reliable information.

Analysis and recommendations

Issue: Lawsuit

This is likely the most significant issue. This is a very large potential liability (claim equal to prior year revenues). Since the company's lawyers cannot estimate the likely loss and even though they fear that the company will lose, note disclosure must be made (no impact on net income or key ratios). However, every attempt should be made to try to estimate the loss. The company will not, however, want to overemphasize the problem. The existence of this lawsuit could result in a going concern problem – information that the auditor and banker will definitely find to be relevant. The company must decide whether to include a note disclosure in the financial statements about its status as a going concern – a tough decision.

IC 6-1 SP (CONTINUED)**Issue:** How to account for the funding from Dev Drugs Corporation (DDC)

Revenue	Liability
<ul style="list-style-type: none"> - The funding represents revenues for development of drugs and distribution systems. It is measurable and collectible since already received. - The money has largely been spent already and therefore, it might be argued that the company has done what it was being paid to do. - The 2% royalty would be paid to DDC who would presumably own the drugs that SP was helping to develop. - The performance obligation is the development service that was provided. It is provided over time and the customer receives and consumes the benefit as it is provided. - Since the services appear to be largely provided over the period – the revenue should be recognized as the services are provided. - Other. 	<ul style="list-style-type: none"> - The transaction represents a source of funding to the company. The company is short of cash and cannot afford to show more debt on the balance sheet. This funding represents a more creative source of cash. - It would appear that the company has an obligation to repay the money via the 2% royalty payment. Even though the legal form is that the payment represents a royalty, the economic substance is that this represents an obligation to repay the funding. - Why would DDC otherwise fund distribution channels? Is this just a type of loan that SP uses to alleviate cash flow difficulties? - Other.

In conclusion, if the money is primarily for drug research and the development of drugs for DDC (where DDC owns the resulting drug), the money may be reflected as revenue as long as SP has satisfied the performance obligation by providing the R&D services. The portion for development of distribution channels sounds more like financing and should be treated as debt. A neutral presentation is required that does not give an advantage to one set of users (management) over another (DDC or shareholders). This would be considered to be a risky area in terms of the audit.

IC 6-1 SP (CONTINUED)**Issue:** Value of investment in Jenstar Drugs Limited (JDL)

Write down	Leave as is
<ul style="list-style-type: none"> - It would appear there is some impairment since there is increased competition. - The patents may be worth less if they relate to the drugs in question. - This is a material amount since they paid \$200 million and the company is now in a break even situation meaning that any write-down would result in a loss. - Other. 	<ul style="list-style-type: none"> - It is too early to assess the impact of the increased competition. - Regarding the patent, the company has a commitment from a third party to buy it for \$50 million. As long as the difference is recoverable from revenues no write-down is necessary. - Other.

At this point, given that it is difficult to estimate the impact of the competition, no write-down is recommended. Since the company is only considering a sale of JDL, this is not a discontinued operations issue. This would also be considered to be a high risk area for the audit since it would be difficult to quantify any impairment or prove that there was no impairment.

Issue: Amortization period of trademark

This is a minor issue given the significance of the other issues. The amortization period could be three years if it is assumed that the company will not renew. If it is assumed they will renew, there is no need to amortize at all. Given there is little cost to renew, it would not be unreasonable to treat the life as indefinite and not book amortization. However, since SP is unsure whether it will renew it or not, there may be some question about the extent of its future economic benefits. This issue should be resolved before a decision is made about the accounting.

IC 6-2 SHANNONROCK RACING INC. (SR)

Overview

- The company is privately owned and therefore has the choice to use ASPE or IFRS. The bank has agreed to accept statements prepared in accordance with ASPE.
- The bank will be a key user and will be looking for transparency – may be bias not to show significant contribution from gas deals.
- Lawyers/plaintiffs in lawsuit may be looking to the statements to determine whether company is overly profiting at the expense of the community (pollution).
- As controller – would want to ensure the financial statements are transparent and that they represent faithfully the economic situation of the company.

Analysis and recommendations

Revenues from upfront fee/membership

Recognize now	Recognize later
<ul style="list-style-type: none"> - Non-refundable fees earned by completing course - Payment for right to belong to club - The amount is measurable and collectible since received in advance - Other 	<ul style="list-style-type: none"> - Allows access over life and therefore spread fees over life - Measurement issue – how to measure life? May use history - Other

In conclusion, would seem more prudent to recognize over the life of the member assuming this can be measured with reasonable certainty.

Insurance fee revenues

Recognize net	Show gross
<ul style="list-style-type: none"> - Costs are incurred for members and so reimbursed by them - The net amount is more like a commission which is earned by selling the insurance Other 	<ul style="list-style-type: none"> - Company has risks – the company actually takes out the insurance and negotiates – If members do not purchase – company is left on the hook Other

In conclusion, recognize on a net basis since it is not the company's main business to sell insurance.

IC 6-2 SR (CONTINUED)

Oil & Gas contracts

Derivative	Expected use/executory contract
<ul style="list-style-type: none"> - The company appears to be trading for profit in speculative contracts - Started out buying contract for own use but now trading - Significant portion of income comes from this source (50%) - Important to be transparent – especially given user interest - If exchange-traded contracts – measure at FV with gains/losses through income - Changes risk profile of company and so additional disclosures - Other 	<ul style="list-style-type: none"> - The contracts are entered into for purposes of meeting gas needs of drivers. - Therefore, the company may document as expected use contract. - Like purchase commitments – would not necessarily get recognized until delivery of gas. - Other

Their business seems to have changed to include active trading and therefore these contracts should be recognized and revalued at each reporting date.

Lawsuit

Accrue cleanup costs	Do not
<ul style="list-style-type: none"> - Clearly at fault – business produces a significant amount of pollution - Company has a duty to cleanup that it cannot avoid if it wants to remain in the community - Other 	<ul style="list-style-type: none"> - Pollution could be due to highway – difficult to measure - No responsibility – not breaking any laws - Other

The lawsuit seems to be at a very preliminary stage and so may disclose (only) at this point.

Other minor issues.

IC 6-3 TOWERS INC. (TI)

Overview

- Shares trade on the stock exchange and therefore IFRS is a constraint
- There is a downturn in business due to economic decline, industry alignment and tightening of capital markets – as such there may be a reporting bias to either make the financial statements look better or to clean out the balance sheet so that future years look better – 2017 was a turnaround period
- Employee bonus plan puts pressure on achieving profits in the fourth quarter. “Profits” are therefore a key number – there is an uncertainty as to how these are defined, i.e. Net Income versus operating profits
- Profitability targets may lead to manipulation – road maps are especially problematic since they imply that the numbers may be manipulated and that this is acceptable to management
- It appears as though management has manipulated profits in prior years by overstating provisions. This further supports the potential for manipulation in the current year. This is unacceptable and unethical. As controller and a CPA, you should not accept this.
- Company is under scrutiny from securities regulators which means there is additional risk if aggressive accounting is employed. The lawsuits also increase this risk since in both cases, accounting will come under close scrutiny either from the regulators or in court
- Stakeholders include regulators who will be deciding whether to fine or penalize the company. They, along with the investors and their lawyers, will be looking for evidence of aggressive accounting
- Credit rating agencies will also use the financial statements to assess the creditworthiness of the company. They will be looking for evidence of aggressive accounting to support their recent downgrade
- The stock exchanges are other stakeholders and must make the decision on whether to delist the company.
- Management walks a fine line. On the one hand, they want to ensure that the employees are retained and get any bonuses that they deserve. On the other hand, they want to ensure that the accounting is transparent since the company is at risk in terms of potential lawsuits and regulatory penalties as well as being delisted from the exchange.

IC 6-3 TI (CONTINUED)**Analysis and recommendations**

Issue: Revenue recognition – interim product solutions

Recognize revenues	Do not
<ul style="list-style-type: none"> - The interim and final versions are interrelated and therefore this is one performance obligation. - It appears as though the contract will be fulfilled within the year but revenue should be recognized over time as long as the company can measure the percentage complete - the software is an asset that is created by the company and that is controlled by the customer. - Past history shows that returns are highly unlikely. - The sale is measurable since the amount has been agreed to and as noted above – returns are unlikely. - The customers have already paid half of the amount and since the other part will be paid within a short period – likely collectibility is not an issue. - Other. 	<ul style="list-style-type: none"> - The interim product is not the product that the customer agreed to buy and therefore the customer has not received the product and no revenue should be recognized until the final product is completed and delivered (control passes to the customer). At this point – the customer will accept the asset. - Immediate recognition is aggressive accounting and will surely be questioned by the regulators and in court. The company cannot afford any more negative publicity. - If the company does not ever ship the final product, then the sale would be null and void. - Other.

Recognizing revenue now would likely be viewed as overly aggressive. However, the revenue could be recognized over time using the percentage of completion method as long as the company is able to measure the percentage complete. This will have a negative impact on the employees as it may cause them to miss their targets. They may feel that the sales are valid economic transactions that have resulted from their efforts.

Issue: How to account for the acquisition of the subsidiary

The company presently owes DEF Inc. additional consideration for a prior acquisition. This will take the form of issuing additional shares.

IC 6-3 TI (CONTINUED)

Accrue the additional consideration	Do nothing
<ul style="list-style-type: none"> - This additional consideration should be debited to the investment account. - The obligation to deliver a certain number of shares creates a duty that cannot be avoided if the acquired company performs well. It is unclear whether a fixed dollar amount is owed (liability) or a fixed number of shares (equity). - The company appears to be performing at above expectation levels to date. - IFRS requires recognition of contingent consideration upfront (measured at fair value). - Other. 	<ul style="list-style-type: none"> - It is not known whether the acquired company will perform as well at year end and therefore, this is a contingency. - The argument may be made that the main problem is that the amount to be paid (in terms of shares) cannot be reliably measured. - At most, disclosure should be made. - Other.

This does not, however, affect the bonuses for this year. The higher investment cost will flow through to future years and generate lower profits in the year sold. Despite this, recognition of the contingent consideration is the acceptable route (as long as it is measurable) and it reflects the reality of the situation.

IC 6-3 TI (CONTINUED)

Issue: Treatment of the abandonment of the voice-over-fibre (VOF)

Discontinued Operations (DO)	Not
<ul style="list-style-type: none"> - Separate component dealing with a specific technology – VOF. - It would appear that the operations and cash flows are distinct since it seems that the company has determined which assets will be abandoned and which employees will be let go. It sounds as though the closure is imminent (early 2019) which implies that a detailed plan is in place. - Creates transparent financial statements since the company has strategically decided to let go of old technology to allow investment and focus on the new technology. - The assets are not held for sale since they will be abandoned, and not sold. - The company may wish to assess whether assets are impaired or not since future cash flows appear to be non-existent. - The results of operations up to year end would be classified as DO on the statement of income - Note that if the bonus is based on Income from continuing operations, this may be an important issue. If based on net income – no impact. - Other. 	<ul style="list-style-type: none"> - Seems like this is a part of the evolution of the business. - It is not clear that the VOF is operationally distinct – it may be no more than a production line. Likewise, no evidence that cash flows are separate. - It is misleading to try to break out the costs and revenues if you cannot measure them. - The company may wish to assess whether or not assets are impaired since future cash flows appear to be non-existent. - Other.

Transparency might dictate that the operations be segregated and that every attempt be made to show them separately so that users may assess the future prospects of the company.

IC 6-3 TI (CONTINUED)

Finally, the provisions should not be used to manipulate earnings. Every attempt must be made to measure the value of the bad debts and inventory and evidence should be gathered to substantiate the values. The reversal of the provisions should be highlighted as a one-time and non-recurring item if they are no longer needed.

The Controller should take the issue to the next higher managerial level.

If there is no resolution, the controller should continue to present the problem to successively higher levels of internal review; i.e., audit committee, Board of Directors.

The Controller should have a confidential discussion of his/her options with an objective advisor to obtain a clearer understanding of possible courses of action.

After exhausting all levels of internal review without resolution, the Controller may have no other recourse than to resign from his/her position. Upon doing so, he/she should submit an informative memorandum to an appropriate representative of the organization.

The Controller should not communicate with individuals outside of the organization about this situation unless legally prescribed to do so.

RESEARCH AND ANALYSIS

RA 6-1 BROOKFIELD ASSET MANAGEMENT INC.

- (a) Brookfield Asset Management owns and operates assets around the world, focusing on property, renewable energy, infrastructure and private equity.
- (b) Brookfield Asset Management's gross revenues in (millions of) Canadian dollars for its last two fiscal years are as follows:

	<u>December 31,</u> <u>2014</u>	<u>% CHANGE</u>	<u>December 31,</u> <u>2013</u>
Revenues	\$18,364	-8.6%	\$20,093

The company experienced a fairly significant reduction in revenue compared with the prior year. Note 22 indicates that revenues from the sale of goods, the provision of services and from other activities were all down from the previous year, but most significantly, from the rendering of services. Looking at Note 3, Segmented Information, it appears that three of its eight reportable segments had increased revenues, two segments had relatively minor decreases in revenues and three had significant decreases. These latter three were in the Asset Management (\$549 or 72%), Private Equity (\$1,565 or 38%) and Service Activities (\$218 or 6%) segments.

- (c)

	<u>December 31,</u> <u>2014</u>	<u>% CHANGE</u>	<u>December 31,</u> <u>2013</u>
Net Income	\$5,209	+35.5%	\$3,844

The expected relationship between net income and revenue is not evident from the review of December 31, 2014 and December 31, 2013 net income and revenue results alone. Not surprising is the 5.8% **reduction** in the direct costs over this same period. Direct costs (see Note 23) are the cost of sales and compensation that relate to the revenues, and are made up of "all attributable expenses except interest, depreciation and amortization, taxes and fair value changes." The rest of the company's 2014 and 2013 statements of operations has to be reviewed in detail to explain the significant increase in net income of \$1,365.

RA 6-1 BROOKFIELD (CONTINUED)

(c) (continued)

First, some costs are relatively fixed in nature and these are approximately the same in both years: these include interest expense, corporate costs and depreciation and amortization expenses. Other income and gains were \$1,072 lower in 2014, partially offset by equity accounted income of associated companies which was \$835 higher. The most significant positive change, however, is the increase in fair values changes recognized in income, being \$3,011 higher than the \$663 recognized in 2013.

(d) The company recognizes revenue on the following bases, indicating the diverse business interests and industry operations the company has:

Operating segment	Revenue recognition policies
Asset management	Base management and advisory fees and incentive distributions are accrued and recognized as the services are provided. Any performance-based incentive fees are not recognized until the end of the period the contract indicates the fee is not subject to future adjustments.
Property operations	<p>Rental revenues from leasing operations: contractual rent to be received is recognized over the term of the lease on a straight-line basis. Percentage participating rents are recognized when tenants' sales targets have been met.</p> <p>Revenue from land sales: recognized when the risks and rewards of ownership have been transferred, possession/title has been transferred, material conditions related to the sale have been met, and a significant cash payment (or security for this) has been received.</p> <p>Revenue from hotel operations: revenue is recognized when the services are provided and collection is reasonably assured.</p>
Renewable energy operations	Revenue from the sale of electricity is recognized as power is delivered, measured at a contract rate or market rates at the time.

RA 6-1 BROOKFIELD (CONTINUED)

(d) (continued)

Operating segment	Revenue recognition policies
Sustainable resources operations	<p>Revenue from sale of logs/related products in its timberland operations: when product is shipped, title passes, and collectability is reasonably assured.</p> <p>Revenue from agricultural development operations: when the risks and rewards of ownership have been transferred.</p>
Transport operations	Revenue from freight and transportation services: when the services are provided.
Energy operations	Revenue from energy transmission, distribution and storage services: when services are provided, based on usage or volume throughput.
Private equity operations	<p>Revenue from the sale of goods: when product is shipped, title passes and collectability is reasonably assured.</p> <p>Revenue from provision of services: when the services are provided.</p>
Residential developments operations	<p>Revenue from residential land sales: recognized when the risks and rewards of ownership have been transferred, usually when possession/title passes, material conditions related to the sale have been met, and a significant cash payment (or security for this) has been received.</p> <p>Revenue from the sale of homes and residential condominium projects: when title passes on closing, usually corresponds to when all the proceeds are received.</p>

RA 6-1 BROOKFIELD (CONTINUED)

(d) (continued)

Operating segment	Revenue recognition policies
Service activities	<p>Revenues from construction contracts where outcome of the contract can be estimated reliably and collection is reasonably assured: recognized using the percentage-of-completion method. Degree of completion is based on actual costs to date as a percentage of total estimated costs.</p> <p>Revenues from construction contracts where outcome of the contract cannot be estimated reliably: revenue is recognized to extent actual costs incurred are expected to be recoverable.</p> <p>Where losses are probable: full expected loss is recognized immediately.</p> <p>Other service revenues: recognized as services are provided.</p>
Investments in financial assets	<p>Dividend income: when dividends are declared.</p> <p>Interest income; accrued as earned using the effective interest method.</p>

NOTE: Brookfield Asset Management, in Note 2(c) to its financial statements, makes reference to the new IFRS standard on revenues – *IFRS 15 Revenue from contracts with customers* – that was issued in 2014, with an effective date of fiscal years beginning on or after January 1, 2017. It indicates that the company has not yet assessed the potential effect of these changes on its financial statements.

RA 6-2 BCE INC. and TELUS CORPORATION

(a) BCE recognizes many different types of revenue as outlined below (Note 1(c)):

- Fees for local, long distance and wireless services are recognized when the services are provided;
- Network access fees, licence fees, hosting fees, maintenance fees and standby fees are recognized over the term of the contract;
- Subscriber revenues are recognized when the customer receives the service;
- Advertising revenue net of agency commissions are recognized when the ad has been aired (on radio or TV), posted on BCE's website, or appears on advertising panels and street furniture;
- Sales of equipment are recognized when the equipment is delivered and accepted by the customer; and
- On long term contracts, revenue is recognized based on contract milestones, as equipment is delivered and accepted, and as services are provided to the customer – an example of a contract with multiple deliverables.

(b) TELUS also recognizes many different types of revenue as outlined below Note 1(e)):

- Voice local, voice long distance, data and wireless services revenues are based on access to, and usage of, the company's network and facilities and on contract fees. These revenues are recognized on an accrual basis and the company includes estimates of the amount of revenues earned but not yet billed.
- Upfront customer activation and connection fees are deferred and recognized over the average expected term of the customer relationship.
- Product revenues and sales of wireless handsets and customer premises' equipment are recognized when the products are delivered and accepted by the customer.
- Equipment leasing income is recognized over the term of the lease – normally on a straight line basis.
- For high cost serving areas where the company earns a subsidy from CRTC, the company accrues the revenue using the subsidized rate and the number of residential lines.
- For non-high cost serving areas where compensation as an alternative to mandated price reductions is received from the CRTC, the amount initially deferred as a liability is taken into income over a period of no longer than three years, on a proportionate basis as qualifying actions are completed. This income is recognized as government assistance in "other operating income" rather than in Revenue.

RA 6-2 BCE INC. and TELUS (CONTINUED)

- (c) BCE reports that when the company has arranged with subcontractors or others to provide a service directly to customers, the company must determine whether it is acting as a principal or as an agent in that relationship. Where the company determines that it is the principal, revenue is reported at the gross amount billed to its customers. Where the company determines that it is an agent, revenue is reported net. However, the company provides no details on what factors are considered in determining how the revenue will be recognized. TELUS makes no reference to subcontracted work or reporting revenue at net amounts. However, TELUS does make reference to the fact that, for wireless handsets sold to re-sellers, it considers itself to be the principal and primary obligor to the end customer.
- (d) Both companies have multiple element arrangements. BCE states that these arrangements relate to the sale of products and services together, principally to its wireless and business customers. The company separates out the different components and allocates the amount of revenue based on each product or service's relative stand-alone fair value, when each product or service has a stand-alone value to the customer. However, when an amount allocated to a delivered item is contingent on delivering additional items or a specific performance level, the revenue allocated to the delivered item cannot exceed the amount allocated to the non-contingent deliverable. Where the separate parts do not have a stand-alone value, revenue is recognized proportionately over the term of the sales agreement.

TELUS states that its contracts to provide "integrated solutions" to customers may include multiple deliverables for products and services that are delivered at different times over the contract. The company estimates that more than two-thirds of its revenues are in the context of a multiple element arrangement. In these cases, the total contract price is allocated based the relative fair values of each component. Like BCE, TELUS describes a "limitation cap" that arises when allocating revenues between deliverables, so that the amount allocated is not contingent on delivering additional products or services or on specific performance criteria. The note explaining revenue recognition refers to this limitation cap as reflecting "the telecommunications industry's generally accepted understanding of the transfer of services and products." If the company enters into several contracts with the same customer over a short period of time, these contracts are reviewed together to ensure relative fair values are used, but otherwise they are accounted for as separate arrangements.

RA 6-2 BCE INC. and TELUS (CONTINUED)

- (e) Telus provides details about the regulated rates that it can charge for high-cost serving areas and non-high cost serving areas in Note 6 to its financial statements. The unique accounting policy that Telus uses to deal with revenue in non-high cost serving areas is a deferral account. As a result of a CRTC decision, Telus has a deferral account to record some of the CRTC subsidy received for basic residential services in non-high cost serving areas. The deferral account represents a liability for Telus and the liability is discharged and income is recognized when Telus completes qualifying actions as required by CRTC. The qualifying activities relate to servicing high-cost and remote areas and improving access to its services for individuals with disabilities. The deferral of revenue is an appropriate accounting treatment as Telus has an obligation to the CRTC to service the remote areas in return for being allowed to charge higher rates to the non-high cost serving areas.
- (f) TELUS's revenue recognition explanations appear to be more comprehensive and descriptive for certain items. More detailed descriptions are given about the nature of the services provided, and how differences in accruals and billings are treated. On the other hand, BCE is much more specific in the types of revenue generated and how these are recognized. It gives more guidance on the types of contracts that have multiple deliverables and how the allocation is decided.
- (g) Both companies address IFRS 15 in the note dealing with accounting standards that have been issued but are not yet effective. While BCE indicates that this standard, that establishes principles for recording revenue from contracts for the sale of goods and services, will affect its financial statements, Telus indicates that it currently expects to be materially affected by its requirements regarding the timing of revenue recognition (including its prohibition of the use of the limitation cap methodology) and the capitalization of the costs of obtaining contracts and the costs of contract fulfillment. Telus also explains which segments of its business are deemed to be most affected. Both companies indicate that they are still evaluating the potential impact of IFRS 15, with Telus expecting to take until early 2016 before its assessment is completed.

RA 6-3 AIRBUS GROUP N.V.

- a) As identified in Note 1 to its financial statements, Airbus Group is in the business of manufacturing commercial aircraft, civil and military helicopters, commercial space launch vehicles, missiles, military aircraft, satellites, defence systems and defence electronics and providing services related to such products.
- b) Airbus Group recognizes revenue related to the construction contracts using the percentage of completion method. The company uses three different approaches to determining the stage of completion depending on the nature of the contract. The degree of completion may be based on:
- contractually agreed upon technical milestones;
 - the number of units delivered;
 - the progression of the work.

When the percentage of completion cannot be determined, for example when the contract is in its early stages, or when the percentage of completion cannot be reliably determined, then the company expenses all costs incurred to date and recognizes revenues to the extent of these costs. Only revenues that are recoverable are recognized. This method results in no profit being recognized until later in the contract term. Once the stage of completion can be reliably determined, revenue from that point on is recognized based on the percentage of completion method.

- c) As explained in Note 19, the company has included in receivables the amounts of contracts under the percentage of completion method, net of advance payments received from the customer. At December 31, 2014, this amount was EUR 1,941 million (EUR 2,366 million in 2013-adjusted).

The total amount of costs incurred and recognized profits (less recognized losses) in 2014 is EUR 68,543 (2013-adjusted was EUR 63,029). The gross amount due from customers at December 31, 2014 was EUR 3,828 million. This represents the contract costs plus recognized profits (less losses) to date, in excess of progress billings on contracts in progress. The gross amount due to customers was EUR 2,535 million and represents progress billings in excess of incurred contract costs plus recognized profits (less losses) to the reporting date.

NOTE: The company, in Note 2 to its financial statements, makes reference to the new IFRS standard on revenues – *IFRS 15 Revenue from contracts with customers* – that was issued in 2014, with a future effective date. It indicates that the revised revenue recognition standard is expected to considerably affect the company's financial statements, but it is still under assessment by the company.

RA 6-4 THE PROCTOR & GAMBLE COMPANY (P&G)

- (a) Note 1 to P&G's financial statements indicate that the company provides "branded consumer packaged goods" that are sold in more than 180 countries, and with "on-the-ground" operations in about 70 countries.
- (b) P&G's net sales for its year ended June 30, 2014 were US \$83,062 million.
- (c) P&G's net sales increased by US \$1,056 million or 1.3% between 2012 and 2014: between 2012 and 2013, the increase was US \$575 million or 0.7%, and between 2013 and 2014, the increase was US \$481 million or 0.6%.
- (d) All revenue transactions are from the sale of inventory products. Revenue is recognized when title to the goods, ownership, and the risk of loss are transferred to the customer. This could be either on the date the goods are shipped to or when they are received by the customer. Net sales are defined as revenue from sales, net of sales and other taxes collected on behalf of government bodies, plus shipping and handling costs included in the list prices charged to customers, minus same period allowances for sales discounts and product returns. In addition, sales are reported net of trade promotion costs.
- (e) Trade promotions include pricing allowances and funds made available to customers for merchandising the products, as well as for consumer coupon programs. The costs associated with all trade promotion spending are deducted from revenue in determining net sales, usually in the same period as the sale is recognized. This is accomplished by recognizing accrued marketing and promotion liabilities for such amounts in the same period as the sales are recognized. As the trade promotion obligations are met, the liabilities are reduced.

Pricing allowances (volume rebates) are usually based on customers making a qualifying level of purchases from P&G in a one-year period. To the extent P&G can estimate with sufficient reliability a measure of its obligations to pay out under such programs, accrual accounting and matching would dictate the recognition of the costs in the same period as the related sales. Whether providing merchandising funding is based on similar criteria as customer volume rebates or a fixed amount is provided with each purchase to customers, this matching also would be required under accrual accounting.

RA 6-4 P&G (CONTINUED)

(e) (continued)

For both of these types of customer incentives, P&G is not receiving any additional benefit, but only the current sales from the customer. Both are appropriately recognized as reductions in revenue as price adjustments. Deducting costs associated with coupons provided to the P&G consumers from current revenue may or may not be consistent with accrual accounting. This is because the conditions attached to the coupons can take various forms and require different transactions on the part of the consumers. To the extent that the coupons are a form of multiple product arrangement with the remaining revenue deliverable to be provided in the future, accrual accounting would require the deferral of some part of current period revenues until the ultimate transaction with the consumer is complete at which point the deferred revenue and costs of the transaction are recognized in the same period.

To the extent that P&G's coupons are not considered a future revenue/product deliverable, but instead are considered price adjustments of current period sales, accrual accounting would account for them as reductions in the amount of current sales revenue recognized. Although the revenue reductions might not exactly match up with the sales actually recognized in revenue, the differences from year to year would be immaterial. It is noted, however, that P&G's obligation reported for the accruals under the coupon programs are labeled as marketing and promotion obligations. If seen by the company as marketing/promotion costs, to be consistent with this view, the estimated cost of the coupons should be included as a separate selling cost rather than as a pricing incentive and reduction in revenues.

RA 6-5 THE COCA-COLA COMPANY AND PEPSICO, INC.

(a)

(in millions of US\$)	Coca-Cola	PepsiCo
Net revenue - 2014	\$45,998	\$66,683
Net revenue - 2013	46,854	66,415
\$ change in net revenues	(856)	268
% change in net revenues	(1.8%)	0.4%

PepsiCo's net revenue increased by a small 0.4% in 2014 over 2013, while Coca-Cola's net revenue actually decreased by 1.8%

(b) Both companies appear to have similar revenue recognition policies.

Coca-Cola indicates that it recognizes revenue when there is persuasive evidence of an existing arrangement, delivery of the product has taken place, the price is fixed or determinable, and collectability is reasonably assured. To relate this principle to Coca-Cola itself, the company explains that this means that revenue is recognized when title to the goods has been transferred to its bottling partners, resellers or other customers. This occurs either when shipped from the company or when received by the customer, depending on the terms of the sale. The company does not allow product to be returned except for manufacturing defects on the company's part.

PepsiCo reports a similar policy, indicating that they also do not allow a right of return. However, the company explains that it has a policy of removing and replacing certain products that are damaged or out-of-date from store and warehouse shelves. Therefore, the company provides for an allowance for anticipated damaged and out-of-date products, which is assumed to be deducted from sales revenue.

RA 6-5 COCA-COLA COMPANY AND PEPSICO (CONTINUED)

- (c) The geographic segments each company operates in is found in the notes on segmented information.

Coca-Cola generates net operating revenue in the following geographic areas, with the percentage of total reported revenues noted in brackets: Eurasia (5.9%), Europe (10.5%), Latin America (10.0%), North America (46.7%), Asia Pacific (11.4%), and it includes a Bottling Investments segment (15.2%) as well as Corporate (0.3%). The company discloses the fact that US\$19,763 million of the revenues (43.0%) are generated in the United States.

PepsiCo. reports that its most significant revenue is derived from six countries as follows: United States (51.3%), Russia (6.6%), Mexico (6.2%), Canada (4.5%), United Kingdom (3.3%), Brazil (2.7%), with all other (approximately 194 countries) making up the remaining sales (25.4%).

As can be seen, the United States is the largest market for both companies making up 43.0% of net revenues for Coca-Cola and 51.3% for PepsiCo, leaving foreign sales at 57.0% for Coca-Cola and 48.7% for PepsiCo. PepsiCo appears to rely more on domestic markets and sales than does Coca-Cola.

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