

Financial Statement Analysis & Valuation, 5th Edition
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Practice Quiz Solutions

Module 5 – Revenue Recognition and Operating Income

1. On March 15, 2017, Frankel Construction contracted to build a shopping center at a contract price of \$240 million. The schedule of expected (which equals actual) cash collections and contract costs follows:

Year	Cash Collections	Cost Incurred
2017	\$60 million	\$30 million
2018	100 million	80 million
2019	<u>80 million</u>	<u>60 million</u>
Total	<u>\$240 million</u>	<u>\$170 million</u>

Calculate the amount of net income for each of the three years 2017 through 2019 using the cost-to-cost method. (\$ millions)

- a. 2017: 13.2 2018: 32.8 2019: 24.0
b. 2017: 60 2018: 100 2019: 80
c. 2017: 30 2018: 20 2019: 20
d. 2017: 17.50 2018: 29.16 2019: 23.34

Answer: a

(\$ millions)		Cost-to-Cost Method		
Year	Costs incurred	Percent of total expected costs	Revenue recognized (percentage of costs incurred × total contract amount)	Income (revenue – costs incurred)
2017	\$30	18% (\$30/\$170)	\$ 43.2	\$ 13.2
2018	80	47% (\$80/\$170)	112.8	32.8
2019	<u>60</u>	35% (\$60/\$170)	<u>84.0</u>	<u>24.0</u>
	<u>\$170</u>		<u>\$240.0</u>	<u>\$70.0</u>

2. The following is Beta Industries income statement.

(\$ millions)	2016
Net sales	\$19,207
Cost of products sold	5,928
Marketing, selling and administrative	5,106
Advertising and product promotion	1,476
Research and development	2,746
Provision for restructuring, net	32
Litigation settlement, net	269
Gain on disposal of assets	(569)
Equity in net income of unconsolidated affiliates	(334)
Interest expense, net	<u>37</u>
Total expenses	<u>14,691</u>
Earnings before income taxes	4,516
Provision for income taxes	<u>932</u>
Net earnings	<u>\$ 3,584</u>

Notes:

- Equity in income of unconsolidated affiliates refers to income Beta Industries has earned on investments made for strategic purposes.

Which of the following components would you not consider operating?

- Equity in net income of affiliates
- Gain on disposal of assets
- Research and development
- Interest expense

Answer: d

Equity in net income of affiliates is generally considered to be operating provided that the investment is strategic in nature, which is typically the case. Gain on disposal of assets and research and development are considered operating.

Interest expense is a non-operating expense.

3. Which of the following best describes the condition(s) that must be present for the recognition of revenue?
- a. Revenue is recognized when the good or service is provided and payment is collected
 - b. There are no uncertainties in measurement of income
 - c. Revenue is recognized when the good or service is provided regardless if payment is received
 - d. Expenses must be measurable and directly associated with the revenues.

Answer: c

All that is necessary for the company to recognize revenue is for the good to be transferred or the service performed. It is at that point the company's performance obligation under the contract is satisfied and revenue can be recognized. Many sales are on credit, meaning the customer has agreed to pay the company in the future. The company still recognizes revenue when the good or service is transferred to the customer, and it records an account receivable that it collects at a later date. The recognition of revenue is unaffected by the delayed receipt of cash if the company has fulfilled its performance obligation.

4. A company's projects extend over several years and collection of receivables is reasonably certain. Each of its projects has a contract that specifies a price, and reliable estimates can be made of the extent of progress and cost to complete each project.

The method that the company should use to account for construction revenue is the:

- a. Installment method
- b. Cost-to-cost method
- c. Completed-contract method
- d. Sales method

Answer: b

An accepted practice for many years has been to recognize revenue over the life of a long-term contract in amounts that track the percentage of completion of the contract. Companies typically use the percentage of projected contract costs that have been incurred to estimate the contract's percentage of completion called the cost-to-cost method.

5. Binder Corporation agreed to build a warehouse for a client at an agreed contract price of \$4,000,000. Expected (and actual) costs for the warehouse follow: 2017, \$640,000; 2018, \$1,600,000; and 2019, \$800,000. The company completed the warehouse in 2019.

Compute net income for each year 2017 through 2019 using the cost-to-cost method.

- | | | |
|--------------------|-------------------|-----------------|
| a. 2017: \$200,000 | 2018: \$520,000 | 2019: \$240,000 |
| b. 2017: \$640,000 | 2018: \$1,600,000 | 2019: \$800,000 |
| c. 2017: \$0 | 2018: \$0 | 2019: \$960,000 |
| d. 2017: \$320,000 | 2018: \$320,000 | 2019: \$320,000 |

Answer: a

Year	Costs incurred	Cost-to-Cost Method		
		Percent of total expected costs	Revenue recognized (percentage of costs incurred × total contract amount)	Income (revenue – costs incurred)
2017	\$ 640,000	21% ^a	\$ 840,000	\$200,000
2018	1,600,000	53% ^b	2,120,000	520,000
2019	<u>800,000</u>	26% ^c	<u>1,040,000</u>	<u>240,000</u>
Total	<u>\$3,040,000</u>		<u>\$4,000,000</u>	<u>\$960,000</u>

^a \$640,000 / \$3,040,000

^b \$1,600,000 / \$3,040,000

^c \$800,000 / \$3,040,000

6. Assume Procter & Gamble (PG) and Colgate-Palmolive (CL) report the following sales and accounts receivable balances (\$ millions).

	Procter & Gamble		Colgate-Palmolive	
	Sales	Accounts Receivable	Sales	Accounts Receivable
2015	\$51,407	\$4,062	\$10,584	\$1,320
2016	56,741	4,185	11,397	1,309

Compute the 2016 accounts receivable turnover for both companies.

- | | |
|--------------|----------|
| a. PG: 13.56 | CL: 8.71 |
| b. PG: 13.11 | CL: 8.35 |
| c. PG: 13.76 | CL: 8.67 |
| d. PG: 15.31 | CL: 9.02 |

Answer: c

Accounts Receivable Turnover rates for 2016	
Procter & Gamble	$\$56,741 / [(\$4,062 + \$4,185) / 2] = 13.76$
Colgate-Palmolive.....	$\$11,397 / [(\$1,320 + \$1,309) / 2] = 8.67$

7. Assume 3M Company reports the following financial statement amounts in its 2016 10-K report.

(\$ millions)	Sales	Cost of Goods Sold	Receivables, net	Inventories	PPE, net
2014.....	\$18,232	\$ 9,285	\$2,714	\$1,816	\$5,609
2015.....	20,011	9,958	2,792	1,897	5,711
2016.....	21,167	10,381	2,838	2,162	5,593

Compute the accounts receivable turnover ratios for both 2015 and 2016.

- a. 2015: 7.27 2016: 7.52
- b. 2015: 7.17 2016: 7.46
- c. 2015: 3.57 2016: 3.66
- d. 2015: 3.54 2016: 3.69

Answer: a

Accounts receivable turnover ratios		
2015	$\frac{\$20,011}{\frac{\$2,714 + \$2,792}{2}} = 7.27$	
2016	$\frac{\$21,167}{\frac{\$2,792 + \$2,838}{2}} = 7.52$	

8. Assume the following is the current asset section from Intuit's balance sheet.

July 31 (\$ 000s)	2016	2015
Cash and cash equivalents	\$ 83,842	\$ 25,992
Investments	910,416	991,971
Accounts receivable, net	86,125	81,615
Deferred income taxes	54,854	31,094
Prepaid expenses	99,275	62,792
Current assets of discontinued operations	21,989	12,279
Funds held for payroll customers	357,838	323,041
Total current assets	<u>\$1,614,339</u>	<u>\$1,528,784</u>

Assume Intuit's 2016 revenue was \$2,038,000 thousand. Compute days sales outstanding for 2016.

- a. 16.4 days
- b. 29.9 days
- c. 12.7 days
- d. 15.0 days

Answer: d

Days sales outstanding is: $(365 \times [(\$86,125 + 81,615)/2]) / \$2,038,000 = 15.0$ days

9. Andersen's Bookstores offers an unconditional return policy. It normally expects 5% of sales at retail selling prices to be returned before the return period expires. Assume Andersen's Bookstores records total sales of \$8.0 million for the current period.

What amount of net sales should it record for this period?

- a. 7.6 million
- b. 8.6 million
- c. 0.4 million
- d. 8.0 million

Answer: a

Net sales would equal \$7.6 million ($\$8.0 \text{ million} \times 95\%$). The company would create an allowance for sales returns on the balance sheet to offset the 5% of cash sales they expect to have to refund.

10. Radek Company estimates its uncollectible accounts by aging its accounts receivable and applying percentages to various aged categories of accounts. Radek computes a total of \$3,200 in estimated uncollectible accounts as of its current year-end. Its accounts receivable has a balance of \$73,000, and its allowance for uncollectible accounts has an unused balance of \$900 before any year-end adjustments.

What amount of bad debts expense will Radek Company report in its income statement for the current year?

- a. \$4,100
- b. \$2,300
- c. \$3,200
- d. \$2,900

Answer: b

To bring the allowance from \$900 to the desired \$3,200 balance, the company will need to increase the allowance account by \$2,300 ($\$3,200 - \900), which results in the same amount for bad debts expense.

11. Assume the following current asset section was obtained from the W.W. Grainger, Inc., balance sheet.

As of December 31 (\$000s)	2016	2015
Cash and cash equivalents	\$ 544,894	\$ 429,246
Accounts receivable (less allowances for doubtful accounts of \$18,401 and \$23,375 respectively)	518,625	480,893
Inventories	791,212	700,559
Prepaid expenses and other assets	54,334	47,086
Deferred income taxes	<u>88,803</u>	<u>96,929</u>
Total current assets	<u>\$1,997,868</u>	<u>\$1,754,713</u>

Grainger reports the following footnote relating to its receivables.

Allowance for Doubtful Accounts The following table shows the activity in the allowance for doubtful accounts.

For Years Ended December 31 (\$ 000s)	2016	2015
Balance at beginning of period	\$23,375	\$24,736
Provision for uncollectible accounts	1,326	5,159
Write-off of uncollectible accounts, less recoveries	(6,380)	(6,662)
Foreign currency exchange impact	<u>80</u>	<u>142</u>
Balance at end of period	<u>\$18,401</u>	<u>\$23,375</u>

What percentage of its total accounts receivable does Grainger feel are uncollectible at December 31, 2016?

- 3.55%
- 3.43%
- 0.26%
- 1.23%

Answer: b

(\$ 000s)	2016
Accounts receivable (net)	\$518,625
Allowance for uncollectible accounts	<u>18,401</u>
Gross accounts receivable	\$537,026

Percentage of uncollectible accounts to gross accounts receivable	3.43%
	(\$18,401/\$537,026)