

SOLUTIONS

Learning Goal 11

Multiple Choice

1. a
2. c
3. d
4. d
5. a
6. c
7. b Calculation: $\$12,250 / .98 = \$12,500$
8. b Calculation: $(\$108,000 - \$14,000) (1.07) = \$100,580$. Then, $\$100,580 + \$14,000 = \$114,580$ total cash collected.
9. a Calculation: $(\$20,580 - \$1,960) / .98 = \$19,000$. Remove the part of the collection that does not relate to Sales—the shipping charges—and the remainder is 98% of the sales amount.
10. b The credit memo would show a credit to Accounts Receivable of \$2,000.
11. b Sales returns and allowances reduce net sales. Shipping charges paid by the seller are either an expense or a receivable reimbursed by the buyer. Sales tax is a liability.
12. c
13. c A credit memo indicates a reduction in accounts receivable.
14. a $\$8,000 \times .75 \times .85 \times .98 = \$4,998$
15. d
16. c Note that this is a discount that reduces the invoice price, before the purchase discount is applied.
17. a
18. c
19. a
20. d
21. c Calculation of cash payment: $\$7,000 \times .98 = \$6,860$. \$140 difference is the discount.
22. a No shipping costs for buyer because they are paid by seller to the destination.
23. b If you record a purchase at the net amount, all returns, allowances, etc., must also be at the net amount.
24. a $\$161,850 - \$8,100 = \$153,750$.
25. c
26. d
27. c $\$18 / (\$18 + \$582) = .03$
28. a $\$3,300 / .97 = \$3,402.06$. Because the payment is within the discount period, it is considered to be “net of” the 3% discount; that is, the amount after subtracting the discount. Therefore, you must ask: “\$3,300 is 97% of what number? To check your answer, multiply \$3,402.06 times .97.

SOLUTIONS

Learning Goal 11, continued

Reinforcement Problems

LG 11-1.

a.

March 1	Cash		3,500	
	Accounts Receivable			3,500
	Collection of account receivable with no discount taken			

b.

March 3	Cash		3,430	
	Sales Discounts		70	
	Accounts Receivable			3,500
	Collection of account receivable less 2% discount			

c.

March 4	Sales Returns and Allowances		250	
	Accounts Receivable			250
	Credit for unsatisfactory merchandise			

d.

March 5	Accounts Receivable		500	
	Freight-out Expense		50	
	Sales			500
	Cash			50
	Sale made and seller pays the freight cost as expense			

SOLUTIONS**Learning Goal 11, continued****LG 11-2.**

June 8	Accounts Receivable		5,800	
	Sales			5,800
11	Accounts Receivable		750	
	Freight-out		100	
	Sales			750
	Cash			100
14	Accounts Receivable		3,950	
	Sales			3,750
	Cash			200
19	Sales Returns and Allowances		700	
	Accounts Receivable			700
20	Cash		735	
	Sales Discounts		15	
	Accounts Receivable			750
21	Cash		5,049	
	Sales Discounts		51	
	Accounts Receivable			5,100
23	Cash		3,875	
	Sales Discounts		75	
	Accounts Receivable			3,950

SOLUTIONS**Learning Goal 11, continued****LG 11-3.**

Date	Account	Post. Ref.	Dr.	Cr.
Nov. 3	Cash		5,400	
	Sales			5,000
	Sales Tax Payable			400
7	Accounts Receivable		2,000	
	Sales			2,000
8	Cash		840	
	Sales			840
10	Sales Returns and Allowances		650	
	Accounts Receivable			650
13	Accounts Receivable		10,400	
	Sales			10,000
	Cash			400
15	Cash		1,900	
	Sales			1,900
16	Cash		2,916	
	Sales			2,700
	Sales Tax Payable			216
17	Cash		1,323	
	Sales Discounts		27	
	Accounts Receivable			1,350
20	Cash		500	
	Sales			500
22	Accounts Receivable		19,440	
	Sales			19,440
	(27,000 × .9 × .8 = 19,440)			

SOLUTIONS**Learning Goal 11, continued****LG 11-3, continued**

Date	Account	Post. Ref.	Dr.	Cr.
Nov. 24	Cash		10,400	
	Accounts Receivable			10,400
29	Cash		2,700	
	Sales			2,500
	Sales Tax Payable			200
30	Sales		240	
	Sales Tax Payable			240
	$(840 + 1,900 + 500 = 3,240)/1.08 = 3,000$			

LG 11-4.

Date	Account	Post. Ref.	Dr.	Cr.
March 2	Accounts Receivable		5,200	
	Sales			5,200
5	Accounts Receivable		7,000	
	Sales			7,000
8	Sales Returns and Allowances		900	
	Accounts Receivable			900
11	Accounts Receivable		4,150	
	Sales			4,000
	Cash			150
12	Cash		4,214	
	Sales Discounts		86	
	Accounts Receivable			4,300

SOLUTIONS

Learning Goal 11, continued

LG 11-4, continued

Date	Account	Post. Ref.	Dr.	Cr.
March 15	Cash		5,880	
	Sales Discounts		120	
	Accounts Receivable			6,000
17	Accounts Receivable		15,000	
	Sales			15,000
	Freight-out Expense		350	
	Cash			350
21	Cash		4,070	
	Sales Discounts		80	
	Accounts Receivable			4,150
30	Cash		15,000	
	Accounts Receivable			15,000
31	Cash		1,000	
	Accounts Receivable			1,000
31	Cash		980	
	Accounts Receivable			980

Comments:

March 15: This is a cash receipt within the discount period, so it is considered to be net of the discount—in other words, *after* a discount has been applied to a larger amount of Accounts Receivable (the invoice amount). The Accounts Receivable (invoice) amount is calculated: $\$5,880 / .98 = \$6,000$.

March 22: This sale is FOB *destination*, and there is no indication that the merchandise has arrived. Therefore, no sale can be recorded because ownership has not yet transferred to the buyer.

March 31: The customer payment is \$1,000 of the *invoice amount* and is within the discount period, so the cash received is $\$1,000 \times .98 = \980 .

SOLUTIONS**Learning Goal 11, continued****LG 11-5.**

Date	Account	Post. Ref.	Dr.	Cr.
March 1	Cash		3,922	
	Sales			3,700
	Sales Tax Payable			222
3	Cash		600	
	Sales			600
4	Accounts Receivable		7,500	
	Sales			7,500
7	Accounts Receivable		11,800	
	Freight-out		620	
	Sales			11,800
	Cash			620
8	Cash		6,678	
	Sales			6,300
	Sales Tax Payable			378
10	Cash		2,650	
	Sales			2,650
12	Cash		5,000	
	Sales Discounts		102	
	Accounts Receivable			5,102
	(5,000/.98 = 5,102)			
13	Accounts Receivable		10,240	
	Sales			10,000
	Cash			240
14	Sales Returns and Allowances		1,000	
	Accounts Receivable			1,000

SOLUTIONS

Learning Goal 11, continued

LG 11-5, continued

Date	Account	Post. Ref.	Dr.	Cr.
March 14	Cash		725	
	Sales			725
15	Accounts Receivable		3,800	
	Sales			3,800
17	Cash		7,500	
	Sales Discounts		153	
	Accounts Receivable			7,653
	(7,500/.98 = 7,653)			
24	Accounts Receivable		34,200	
	Sales			34,200
	(40,000 × .95 × .90 = 34,200)			
24	Cash		2,398	
	Accounts Receivable			2,398
29	Cash		10,240	
	Accounts Receivable			10,240
30	Cash		33,516	
	Sales Discounts		684	
	Accounts Receivable			34,200
31	Cash		3,147	
	Accounts Receivable			3,147
	(11,800 – 1,000 – 7,653 = 3,147)			
31	Sales		225	
	Sales Tax Payable			225
	(600 + 2,650 + 725 = 3,975)/1.06 = 3,750 sales			

Comment: Sales plus sales tax collected for computer supplies is \$3,975. This represents 106% of the sales amount, which is \$3,750 ($\$3,975/1.06 = \$3,750$). The difference of \$225 is the sales tax that is removed from Sales.

SOLUTIONS**Learning Goal 11, continued****Reinforcement Problems****LG 11-6.**

June 11	Purchases		15,000	
	Accounts Payable			15,000
12	Purchases		9,000	
	Freight-in		200	
	Accounts Payable			9,200
15	Accounts Payable		1,000	
	Purchase Returns and Allowances			1,000
15	Office Supplies		2,000	
	Accounts Payable			2,000
17	Purchases		5,000	
	Accounts Payable			5,000
20	Accounts Payable		14,000	
	Purchase Discounts			280
	Cash			13,720
	$(\$14,000 \times .98 = 13,720)$			
22	Accounts Payable		9,200	
	Purchase Discounts			90
	Cash			9,110
	$[(\$9,000 \times .99) + \$200 = \$9,110]$			
27	Accounts Payable		4,000	
	Purchase Discounts			80
	Cash			3,920
	$(\$3,920 / .98 = \$4,000 \text{ invoice amount})$			
29	Freight-in		150	
	Cash			150

SOLUTIONS**Learning Goal 11, continued****LG 11-7.**

a.

Date	Account	Ref.	Dr.	Cr.
Oct. 3	Purchases		11,000	
	Accounts Payable			11,000
5	Purchases		2,700	
	Accounts Payable			2,700
9	Purchases		6,500	
	Freight-in		220	
	Accounts Payable			6,720
10	Accounts Payable		2,000	
	Purchase Returns and Allowances			2,000
12	Purchases		15,000	
	Freight-in		125	
	Accounts Payable			15,000
	Cash			125
13	Accounts Payable		3,608	
	Purchase Discounts			108
	Cash			3,500
19	Accounts Payable		6,720	
	Purchase Discounts			65
	Cash			6,655
20	Purchases		10,000	
	Accounts Payable			10,000
22	Accounts Payable		7,500	
	Purchase Discounts			150
	Cash			7,350

SOLUTIONS**Learning Goal 11, continued****LG 11-7, continued**

Date	Account	Ref.	Dr.	Cr.
Oct. 23	Accounts Payable		5,392	
	Cash			5,392
25	Purchases		12,500	
	Accounts Payable			12,500
29	Accounts Payable		10,000	
	Purchase Discounts			200
	Cash			9,800
	Freight-in		125	
	Cash			125
31	Accounts Payable		2,700	
	Cash			2,700

a.

Accounts Receivable	
11,000	
	2,000
	3,608
	5,392

LG 11-8.

- | | |
|---------------------------------------|--|
| a. $\$3,000 + \$125,400 = \$128,400$ | h. $\$114,850 - \$71,000 = \$43,850$ |
| b. $\$125,400 - \$50,160 = \$75,240$ | i. $\$320,500 - \$314,850 = \$5,650$ |
| c. $\$212,500 - \$201,600 = \$10,900$ | j. $\$314,850 - \$103,900 = \$210,950$ |
| d. $\$201,600 - \$128,700 = \$72,900$ | k. 40% |
| e. "f" must be calculated first: | l. 36.2% |
| $\$429,900 + \$7,500 = \$437,400$ | m. 23.1% |
| f. $\$99,200 + \$330,700 = \$429,900$ | n. 38.2% |
| g. $\$117,350 - \$2,500 = \$114,850$ | o. 33% |

The most profitable company in dollars is the last company (\$103,900 of gross profit dollars). However, the most profitable company as a percentage of sales dollars retained is the first company with a 40% gross profit percentage.

SOLUTIONS**Learning Goal 11, continued****LG 11-9.**

a.

Beginning inventory			\$4,000
Purchases		13,650	
Less:			
Purchase returns and allowances	1,450		
Purchase discounts	<u>250</u>	<u>1,700</u>	
Net purchases		11,950	
Add: Freight-in		<u>400</u>	
Cost of goods purchased			<u>12,350</u>
Cost of goods available for sale			16,350

b. The formula is: $BI + P - EI = C \text{ of GS}$ Solution: $4,000 + 12,350 - 3,750 = 12,600$ **LG 11-10.**

Buyer Company:

Date	Account	Post. Ref.	Dr.	Cr.
April 1	Purchases		15,000	
	Accounts Payable			15,000
3	Purchases		9,000	
	Freight-in		200	
	Accounts Payable			9,200
4	Accounts Payable		5,000	
	Purchase Returns and Allowances			5,000
5	Purchases		5,000	
	Accounts Payable			5,000
6	Equipment		3,675	
	Accounts Payable			3,675
11	Accounts Payable		10,000	
	Purchase Discounts			200
	Cash			9,800

SOLUTIONS**Learning Goal 11, continued****LG 11-10, continued**

Date	Account	Post. Ref.	Dr.	Cr.
April 13	Accounts Payable		9,200	
	Purchase Discounts			90
	Cash			9,110
15	Purchases		17,100	
	Accounts Payable			17,100
15	Accounts Payable		4,000	
	Purchase Discounts			80
	Cash			3,920
19	Supplies		525	
	Cash			525
20	Purchases		11,000	
	Accounts Payable			11,000
30	Accounts Payable		5,500	
	Purchase Discounts			110
	Cash			5,390
31	Accounts Payable		1,000	
	Cash			1,000

Seller Company:

Date	Account	Post. Ref.	Dr.	Cr.
April 1	Accounts Receivable		15,000	
	Sales			15,000
3	Accounts Receivable		9,200	
	Sales			9,200

SOLUTIONS**Learning Goal 11, continued****LG 11-10, continued**

Date	Account	Post. Ref.	Dr.	Cr.
April 4	Sales Returns and Allowances		5,000	
	Accounts Receivable			5,000
5	Accounts Receivable		5,000	
	Sales			5,000
6	Accounts Receivable		3,675	
	Sales			3,500
	Sales Tax Payable			175
11	Cash		9,800	
	Sales Discounts		200	
	Accounts Receivable			10,000
13	Cash		9,110	
	Sales Discounts		90	
	Accounts Receivable			9,200
15	Accounts Receivable		17,100	
	Sales			17,100
15	Cash		3,920	
	Sales Discounts		80	
	Accounts Receivable			4,000
19	Cash		525	
	Sales			500
	Sales Tax Payable			25
20	Accounts Receivable		11,000	
	Sales			11,000

SOLUTIONS**Learning Goal 11, continued****LG 11-10, continued**

Date	Account	Post. Ref.	Dr.	Cr.
April 30	Cash		5,390	
	Sales Discounts		110	
	Accounts Receivable			5,500
31	Cash		1,000	
	Accounts Receivable			1,000

Comments:

October 6: Because in this case the buyer is the final user, sales tax is calculated on the purchase.

October 11: The balance due the original \$15,000 less the \$5,000 return. The discount therefore applies to \$10,000.

October 13: The discount does not apply to the shipping charges. The cash due is \$200 shipping charges plus $(\$9,000 \times .99)$ for a total of \$9,110.

October 15: The amount to pay after the chain discount is calculated as $\$20,000 \times .95 \times .9 = \$17,100$.

October 19: This is another taxable sale because the buyer company is the final user of the supplies.

October 23: This sale is FOB *destination* and there is no indication that the goods have arrived. Therefore, no purchase or sale should be recorded yet because title to the merchandise has not transferred from the seller to the buyer.

October 30: This is a payment on part of the *invoice price*, so the discount is calculated on the \$5,500.

October 31: The balance due is \$5,000 minus \$4,000 Accounts Payable reduction from the October 15 payment.

SOLUTIONS

Learning Goal 11, continued

LG 11-11.

1. $\$10,000 \times .02 = \200
 2. $(\$10,000 / .98) - \$10,000 = \$204.08$
 3. Invoice price: $\$20,000 \times 85 \times .95 = \$16,150$. Discount: $\$16,150 \times .02 = \323 .
 4. The discount should not apply to the \$20,000 of merchandise that was returned.
Amount paid: $\$50,000 \times .94 = \$49,000$
Correct amount: $\$30,000 \times .98 = \underline{\$29,400}$
Credit on next purchase: \$19,600
 5. Payable to Westchester: $\$15,000 \times .98 = \$14,700$
Receivable from Westchester: $\$10,000 \times .99 = \underline{\$9,900}$
Net payment (within discount period): \$4,800
 6. The discount will not apply to any payment after June 13, the end of the discount period.
Discount: $\$9,000 \times .02 = \180 .
Correct Accounts Payable balance: $\$12,000 - \$9,000 = \$3,000$.
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