

CIVE 682: Construction Business Management

Homework 1- Solution

1. Financial Statement Problem

Item	Transactions	Assets					Liabilities			Owners' Equity	
		Cash	+Accounts Receivable	+Inventory	+ Notes Receivable	+ Equipment	+Prepaid Expense	= Accounts Payable	+Notes Payable	+Prepaid Services	+ Owners' Equity
Balance Sheet as of July 31, 20XX		\$ 43,000	\$ 140,000	\$ 12,000	\$ -	\$ 49,000	\$ 6,000	\$ 73,000	\$ -	\$ 7,000	\$ 170,000
1	Materials										
a	Purchased \$20,000 on credit			+20,000				+20,000			
b	Purchased \$14,000 for cash	-14,000		+14,000							
c	Fabricated and/or installed			-30,000							-30,000
d	Returned \$2,000 for credit			-2,000				-2,000			
2	Labor										
a	Incurred \$26,000							+26,000			-26,000
b	Paid \$3,000 for labor incurred in July	-3,000						-3,000			
c	Paid \$24,000 for labor incurred in Aug	-24,000						-24,000			
3	Subcontracts										
a	Incurred \$74,000 of sub. cost on Aug							+74,000			-74,000
b	Paid \$56,000 on past sub. bills	-56,000						-56,000			
c	Paid \$13,000 on Aug. sub.	-13,000						-13,000			
4	Revenue/Billing										
a	Billed \$156,000 for total amount		+156,000								+156,000
b	Received \$127,000 on work completed earlier	+127,000	+127,000								
5	Other										
a	Incurred 10,000 office worker payroll							+10,000			-10,000
b	Paid \$11,000 on Aug. and paid off in payroll	-11,000						-11,000			
c	Purchased & Paid for \$7,200 machine on August 15 with 3yr life	-7,200				+7,200					
d	Purchased \$6,000 office supplies on credit						+6,000	+6,000			
e	Purchased \$4,000 office supplies for cash	-4,000					+4,000				
f	Paid \$8,000 for off sup. purch. in August	-8,000						-8,000			
g	Leased new superintendent \$3,000 for personal expenses in month, in August	+3,000							+3,000		
h	August equip. depre. expense = \$2,000 Leased crane from dealer for 2 yrs for \$2,000					-2,000					-2,000
j	Paid \$4,000 on crane lease	-4,000					3,000	-1,000			
k	Withdraw \$7,000 to pay personal exp.	-7,000									-7,000
l	Rent ed out a backhoe for August @ 1,000/month, corp. received 1/2 of the total	+3,000							+3,000		+3,000
Balance Sheet as of August 31, 20XX		24,800	169,800	14,000		54,800	19,800	91,000	3,000	12,500	177,750

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Income Statement For the Month Ending August 31, 20XX

Contract revenue earned		\$ 156,000 (Transaction 4.a)
Cost of revenue earned	-	\$ 130,000 (Tr. 1.c + 2.a + 3.a)
Gross profit		<u>\$ 26,000</u>
General and administrative expenses	-	\$ 10,000 (Tr. 5.a)
Income from operations		<u>\$ 16,000</u>
Other income	+	\$ 750 (Tr. 5.e)
Owner withdrew cash	-	<u>\$ 7,000 (Tr. 5.k)</u>
Net income		<u>\$ 9,750</u>

Balance Sheet August 31, 2000

Assets		Liabilities and Owners Equity	
Cash	24,800	Account Payable	91,000 \$0.00
Account Receivable	169,000 \$0.00	Notes Payable	3,000 \$0.00
Inventory	14,000 \$0.00	Prepaid Service	9,250 \$0.00
Equipment	54,200 \$0.00	Total Liabilities	<u>103,250 \$0.00</u>
Prepaid Expenses	19,000 \$0.00	Owner's Equity	<u>177,750 \$0.00</u>
Total Assets	<u>281,000</u> \$0.00	Total Liab. & O.E.	<u>281,000</u> \$0.00

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2. Other Financial Statement Problems

Problems 1, 5 and 7 on pg. 77-79 of your textbook

→ *Problem 1: The solutions are as follows:*

Invoice A:

BALANCE SHEET		INCOME STATEMENT		JOB COST
ASSETS	LIABILITIES	EXPENSES	REVENUES	EXPENSES
	310 Accounts Payable-Trade 5,000.00	610 Materials 5,000.00		302.01.32300M 5,000.00
	EQUITY			
	430 Current Period Net Income (5,000.00)	PROFIT (5,000.00)		
0 =	0	0 =	0	

Invoice B:

BALANCE SHEET		INCOME STATEMENT		JOB COST
ASSETS	LIABILITIES	EXPENSES	REVENUES	EXPENSES
	310 Accounts Payable-Trade 11,115.00	630 Subcontract 12,350.00		309.02.22100S 12,350.00
	EQUITY			
	310 Accounts Payable-Retention 1,235.00	PROFIT (12,350.00)		
	430 Current Period Net Income (12,350.00)			
0 =	0	0 =	0	

Invoice C:

BALANCE SHEET		INCOME STATEMENT		JOB COST
ASSETS	LIABILITIES	EXPENSES	REVENUES	EXPENSES
	310 Accounts Payable-Trade 255.00	650 Other 255.00		315.01.01800O 255.00
	EQUITY			
	430 Current Period Net Income (255.00)	PROFIT (255.00)		
0 =	0	0 =	0	

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Invoice D:

BALANCE SHEET		INCOME STATEMENT	
ASSETS	LIABILITIES	EXPENSES	REVENUES
	310 Accounts Payable-Trade 1,352.00	842 Office Rent 1,352.00	
	EQUITY		
	430 Current Period Net Income (1,352.00) =	PROFIT (1,352.00)	
0 =	0	0 =	0

Invoice E:

BALANCE SHEET		INCOME STATEMENT	
ASSETS	LIABILITIES	EXPENSES	REVENUES
	310 Accounts Payable-Trade 112.00	840 Office Supplies 112.00	
	EQUITY		
	430 Current Period Net Income (112.00) =	PROFIT (112.00)	
0 =	0	0 =	0

Invoice F:

BALANCE SHEET		INCOME STATEMENT		EQUIPMENT EXPENSES
ASSETS	LIABILITIES	EXPENSES	REVENUES	EXPENSES
	310 Accounts Payable-Trade 375.00	730 Repairs and Maintenance 375.00		Backhoe 2-Repairs 375.00
	EQUITY			
	430 Current Period Net Income (375.00) =	PROFIT (375.00)		
0 =	0	0 =	0	

Invoice G:

BALANCE SHEET		INCOME STATEMENT	
ASSETS	LIABILITIES	EXPENSES	REVENUES
130 Inventory 563.00	310 Accounts Payable-Trade 563.00		
	EQUITY		
	430 Current Period Net Income 0 =	PROFIT 0	
0 =	0	0 =	0

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Total:

BALANCE SHEET		INCOME STATEMENT	
ASSETS	LIABILITIES	EXPENSES	REVENUES
130 Inventory <div style="text-align: right; color: blue;">563.00</div>	310 Accounts Payable-Trade <div style="text-align: right; color: blue;">18,772.00</div> 311 Accounts Payable-Retention <div style="text-align: right; color: blue;">1,235.00</div>	610 Materials <div style="text-align: right; color: blue;">5,000.00</div> 630 Subcontract <div style="text-align: right; color: blue;">12,350.00</div> 650 Other <div style="text-align: right; color: blue;">255.00</div>	302.01.32300M <div style="text-align: right; color: blue;">5,000.00</div> 309.02.22100S <div style="text-align: right; color: blue;">12,350.00</div> 315.01.01800O <div style="text-align: right; color: blue;">255.00</div>
	EQUITY 430 Current Period Net Income <div style="text-align: right; color: blue;">(19,444.00)</div>	PROFIT <div style="text-align: right; color: blue;">(19,444.00)</div>	EQUIPMENT EXPENSES Backhoe 2 - Repairs <div style="text-align: right; color: blue;">375.00</div>
<div style="text-align: right; color: blue;">563.00</div>	<div style="text-align: right; color: blue;">563.00</div>	<div style="text-align: right; color: blue;">0</div>	<div style="text-align: right; color: blue;">0</div>

→Problem 5: The solutions are as follows:

The \$118,268 needs to be moved from accounts receivable-retention to accounts receivable-trade and has been previously recognized as income; therefore, it should not be included as income.

BALANCE SHEET		INCOME STATEMENT		JOB COST
ASSETS	LIABILITIES	EXPENSES	REVENUES	REVENUE
120 Accounts Receivable - Trade <div style="text-align: right; color: blue;">368,264.00</div> 121 Accounts Receivable - Retention <div style="text-align: right; color: blue;">(118,268.00)</div>			500 Revenue <div style="text-align: right; color: blue;">249,996.00</div>	313 Revenue <div style="text-align: right; color: blue;">249,996.00</div>
	EQUITY 430 Current Period Net Income <div style="text-align: right; color: blue;">249,996.00</div>	PROFIT <div style="text-align: right; color: blue;">249,996.00</div>		
<div style="text-align: right; color: blue;">249,996.00</div>	<div style="text-align: right; color: blue;">249,996.00</div>	<div style="text-align: right; color: blue;">249,996.00</div>	<div style="text-align: right; color: blue;">249,996.00</div>	<div style="text-align: right; color: blue;">249,996.00</div>

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→ *Problem 7: The solutions are as follows:*

The construction equipment account will see an increase of \$115,200 as a result of the purchase of the new loader and a decrease of \$95,000 as a result of the sale of the old loader for a net change of \$20,200. The existing loader had a book value of \$11,770 (\$95,000 – \$83,230); therefore, a gain of \$3,430 (\$15,200 – \$11,770) was realized on the disposal of the loader.

BALANCE SHEET		INCOME STATEMENT		EQUIPMENT
ASSETS	LIABILITIES	EXPENSES	REVENUES	EXPENSES
220 Construction Equipment	380 Long-Term Liabilities		910 Other Income	
20,200.00	100,000.00		3,430.00	
250 Less Acc. Depreciation	EQUITY			
(83,230.00)	430 Current Period Net Income	PROFIT		
103,430.00 =	3,430.00 =	3,430.00		
	103,430.00	3,430.00 =	3,430.00	

The Less Acc. Depreciation is a contra account is subtracted from the total of the assets.

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3. End of Period Closing-Worksheet Problem

WORK SHEET PROBLEM

ACCOUNT TITLE (In \$1,000)	UNADJUSTED TRIAL BALANCE		ADJUSTMENT		ADJUSTED TRIAL BALANCE		INCOME STATEMENT		RETAINED INCOME STATEMENT		BALANCE SHEET	
	Dr	Cr	Dr	Cr	Dr	Cr	Dr	Cr	Dr	Cr	Dr	Cr
Cash	184				184						184	
Accounts Receivable	308				308						308	
Retainage Receivable	46				46						46	
Prepaid Expenses	52			13 a	52	13					39	
Inventory	49			36 d	49	36					13	
Notes Receivable	103		8 g		111						111	
Unbilled Revenue	73			12 e1	73	12					61	
Equipment	141				141						141	
Accumulated Depreciation		66		11 b		77						77
Accounts Payable		256				256						256
Wages Payable				15 c		15						15
Notes Payable		75				75						75
Accrued Taxes		27		20		47						47
Excess Billings			7 f	23 e2	7	23						16
Retained Income (7-31-2002)		335				335					335	
Dividends Paid	18				18				18			
Contract Revenues		759	35	a1+e2	35	759		724				
Contract Costs	434		29	d1s,c,d2	7 f	463	7	456				
G & A Expenses	102		46	a,b,d1dm		148		148				
Other Income		39		8 g		47		47				
							904	771				
Income Tax Expenses	47		20		67		67					
	1557	1557	144.8	145	1702	1702						
Net Income							100			100		
							771	771	18	435		
Retained Income (7-31-2003)									417			417
							435	435	903	903		

Decreased stock on hand considered as contract costs

Deteriorated material considered as G&A expenses

Income tax calculation:

Income tax expenses= 0.4(Con. Revenues-con. Costs-G&A+ other income)= 67

Cell d28=67-period income tax exp=67-47=20

Then credit the accrued taxes account by 20

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BALANCE SHEET as of July 31, 2003

ASSETS	LIABILITIES AND OWNER'S EQUITY
Current Assets	Current Liabilities
Cash	Accounts Payable
Accounts Receivable	Wages Payable
Retainage Receivable	Accrued Taxes
Prepaid Expenses	Excess Billings
Inventory	Total Current Liabilities
Unbilled Revenue	Long Term Liabilities
Total current Assets	Notes payable
Long term Assets	Owner's Equity
Notes Receivable	Retained Income
Equipment	
Less Accumulated Depreciation	
Total Assets	Total Liabilities and Owner's Equity

INCOME STATEMENT for the period ending July 31, 2003

Contract Revenues	\$724,000.00
Contract Cost	\$456,000.00
Gross Profit	\$268,000.00
G & A Expenses	\$148,000.00
Income from operations	\$120,000.00
Other Income	\$47,000.00
Income before taxes	\$167,000.00
Provision for Income Taxes	66,800
Net Income	\$100,200.00
Retained Income, beginning of the month	\$335,000.00
	\$435,200.00
Less Dividends	\$18,000.00
Retained Income, end of the month	\$417,200.00