Practice Problems

THING Business

You have decided that this university life is not for you. You have decided to go into the business of selling THINGS. You start your business with $100,000. $70,000 is your own money and $30,000 you borrow from the bank. (We will ignore interest for a while). On January 1, you bought 10 brand new RED THINGS for $5,000 each. During 20x1 you sold 3 RED THINGS for $20,000 each and paid $12,000 for one year's rent on your THING store.

Thing Business Year 2. During the **second year**, you bought 4 things and sold 6, same prices. You paid the same rent. You hired a worker whom you paid $8,000. **So how did you do?** Prepare Balance Sheet and P&L.

During the **third year** you bought 8 more THINGS for $5,000 each. You have arranged terms which allow you to buy things for 25% down and the rest payable in one year. You also paid your worker $18,000. You sold 6 things @ $20,000 each. You paid the same rent. You now sell things for 20% down and the balance the following year. **Prepare a P&L and a Balance Sheet.**

During the **Fourth year** you paid the rest you owed for the THINGS you bought in the third year, you received the amounts owed you for 5 of the six THINGS you sold last year. During the year you bought 6 more THINGS for $5,000 each. Same terms as year 3. (1/4 down and rest in one year). You also paid your worker $20,000. You sold 5 things @ $22,000 each. You sell on same terms as last year, 20% down and the balance the following year. You paid $11,000 rent in cash and owed $1,000 at the end of the year. On January 1, you purchased a delivery truck for $30,000. You estimate it will last about 5 years and then be worth $5,000. **Prepare a P&L and a Balance Sheet.**

Year 5 You bought 9 more THINGS and sold 8, same terms. Paid the money owed to suppliers (**accounts payable**) at the beginning of the year and collected all money due you at the beginning of the year. Paid worker $22,000 and owed her $1,000 more at the end of the year. Paid eleven months rent.

Boat Business

Your friend opened a boat business on Jan 1, 20x1. She started with $250,000 of her own money and $100,000 borrowed from the bank. During the year she bought three boats for $200,000 each. She sold two of the boats for $250,000 each. Other expenses she paid cash for were: utilities $1,000; wages, $20,000; and rent, $12,000. At the end of the year she owed her workers wages of $1,000. So how did your friend do?

Boat Biz- Year 2
During the second year she bought 4 boats and sold four boats. The boats cost her $220,000 each. She sold the boats for $260,000 each. When she bought the boats in the second year, she paid 50% down in the year of purchase and was to pay the balance in the following year. Also, when she sold the boats, she got 50% down and the balance in the following year. During the year she paid cash for, wages $26,000; utilities of $2,000 and rent of $8,000. At the end of the year, in addition to what she owed on the boats, she owed rent of $4,000 and wages of $2,000. **So how did she do the second year?**

Boat Biz Year 3: During the third year she paid the money she owed for last years merchandise and received the money due her from last years sales. Also, during the third year she bought 5 boats and sold four. The boats cost her $225,000 each and she sold them for $270,000 a piece. She bought the boats by paying $100,000 down each and will pay the rest next year. She sold the boats for ½ down and the rest the following year. She paid rent of $16,000. which represented current years rent plus the rent she owed at the end of the prior year. She paid cash wages of $30,000 and utilities of $3,000. At the end of the year she owed wages of $3,000. So how did she do the third year?

Boat Biz- Year 4 Paid all her beginning accounts payable and received all owed her. Bought 5 boats, sold four. Bought for $230,000 each, sold for $280,000. Bought for ½ down and ½ next year. Sold for ½ down and ½ next year. Paid workers what she owed them at the beginning plus $4,000 per month for eleven months, owed wages of $4,000 at the end of the year for December. Paid $3,000 for utilities. On June 30, bought a building for a second location from which to sell the boats. The building and land cost $200,000. It is expected that the building will last ten years and then the land and building will be worth about 20% of the original cost. To buy the building, she borrowed $160,000 from the bank and used $40,000 of the company's money. She must pay the bank 10% interest at the end of each year. She paid the Year 4 interest on December 31. She spent $40,000 in furniture and fixtures for the new building. It is estimated that these items will last 10 years and then be worth 10% of their value. She opened her new location on October 1. She paid 11 months rent on her first location at $1,000 per month. **To Work! (Prepare Financials)**

Boat Biz- Year 5 Paid beg of the year accounts payable and received the beg of the year accounts receivable. Bought 6 boats, sold six. Bought for $240,000 each, sold for $300,000. Bought for ½ down and ½ next year. Sold for ½ down and ½ next year. Paid workers $54,000 for the year plus, owed wages of $2,000 at the end of the year for December (the $54,000 she paid included what she owed last year). Paid $3,000 for utilities. Paid 16 months rent at $1,000 per month (including the amount she owed from last year. She paid the Year 5 interest on January 1, Year 6. **To Work!** (Prepare Financials). (Don't forget the depreciation).

Slick Sammy

Slick Sammy from Miami opened Unctuous Used Cars, Inc. on Jan 1, 20x1. He deposited $50,000 of his money in a bank in exchange for 5,000 shares of common stock in the corporation. On Jan 1 he rented a building for 12 months. The rent payments are $1,000 per month. During 20x1 he made 10 payments of rent. During the year he bought 20 cars for $4,000 each. He sold 18 of the cars for $8,000 each. He bought the cars for ½ down and ½ next year and sold the cars under the same terms. **Prepare financial statements for 20x1.**

20x2. Paid begin of the year A/P and received all beg of the year A/R. Bought 20 more cars @ $5,000 and sold 16 @$10,000 same terms. Paid 11 months rent. On June 30 bot a three year insurance policy for $3,600. Paid advertising of $12,000 and salaries of $20,000. At the end of the year he owed salaries of $4,000 (not included in the $20,000).

20x3. Paid begin of the year A/P and received all beg of the year A/R. Bot 25 cars ($6,000) and sold 24 @ $11,000 same terms. Borrowed $50,000 from the bank on April 1- payable at $10,000 per year plus interest at 10% each April 1. Used the loan plus $10,000 of the company money to buy a piece of land to build a building on. Paid advertising of $14,000 and salaries of $24,000. At the end of the year she owed salaries of $6,000. Paid 11 months rent. Paid a dividend of $.25 per share.

20x4 Paid begin of the year A/P and received all beg of the year A/R. On Jan 1 built a building for $120,000. It is estimated the building will last 30 years and then be worth nothing. Bot 26 cars and sold 25- same prices and terms. Paid the land payment. Paid salaries of $30,000 and advertising of $16,000. At the end of the year she owed salaries of $1,000 and advertising of $2,000. Paid 13 months rent at $1,000 per month. Paid a dividend of $.30 per share.

How much do you need to put in the bank today so that you can withdraw $100,000 per year for the next four years? Bank pays interest at 8%. Amortize it.

Another Practice Problem

This problem has some traps- it is challenging, be careful

Suzanne's Gymnastics

Suzanne's Gymnastics Company began operations on Mar 31, 20x1. Suzanne, Debbie and Cindy each put $10,000 in the company in exchange for common stock. On Apr 1, Suzanne signed a two year lease on a building on West Court Street. The lease called for monthly rental payments of $1,200. She gave the owner a security deposit equal to two months rent. The security deposit is to be returned to her at the end of the lease. During the year she made ten rent payments (she made Jan 02 payment on Dec 31, 20x1). Also on Apr 1, she signed a contract to purchase $60,000 in gymnastic equipment. She put $10,000 down on the equipment and will make 5 payments of $10,000 plus 10% interest on Apr 1 of each of the next five years. The equipment is expected to last 7 years and then be worth $4,000.

During 20x1: Hired two workers who she paid a total of $24,000 to during the year. At the end of the year she owed the workers $2,000.

Received $62,000 in gymnastic fees plus she was owed $3,000 at the end of the year.

Paid utilities of $2,400, advertising of $8,000 and office and miscellaneous expense of $3,000. At the end of the year she owed advertising of $2,000 (this is not included in the $8,000 above). On July 1 she bought a three year liability insurance policy for $3,600.

As of December 31st, 20x1, prepare a P&L, Balance Sheet, and Statement of Changes in Owners' Equity. Don't forget the interest, the insurance and the depreciation

Year 20x2:. Business is fantastic!! Received all beg of year A/R. She paid the interest and principal payments on the equipment. She paid the advertising and salaries that she owed at the beginning of the year. She paid 10 months rent. During the year she paid in cash; salaries (in addition to what she owed) of $36,000, utilities of $2,900, advertising of $3,600 and other office and miscellaneous expenses of $4,600. At the end of the year she owed salaries of $4,000 and miscellaneous expenses of $600. She received cash from her customers of $88,000 and was owed $6,000 at the end of the year. She has decided to build her own building. She borrowed $50,000 from the bank on Jan 1, 20x3 to buy a piece of land to build a building on. She will repay the bank in ten equal annual payments due on December 31st of each year. The payments are for $7,451.47 and they include interest at 8%. --- **TO WORK**

Bank Problem

You are a banker with only $100,000 left to loan. Two companies have approached you with their Balance Sheets and each wants to borrow exactly $100,000 for 6 months. Both companies were recently created and are in the same business and neither has ever paid a dividend.

Company A

Assets

Cash	$25,000
Accounts Receivable	30,000
Inventory	70,000
Land and Buildings	525,000
Total ________	$____

Liabilities

Accounts Payable	$100,000
Note payable due in 90 days	200,000
Total ________	$____

Owners' Equity

Common Stock	$20,000
Retained Earnings	330,000
Total Owners' Equity	____
Total Liabilities and Owners' Equity	$____

Company B

Assets

Cash	$30,000
Accounts Receivable	60,000
Inventory	40,000
Land and Buildings	180,000
Total ________	$____

Liabilities

Accounts Payable	$15,000
Note payable due in 90 days	20,000
Total ________	$____

Owners' Equity

Common Stock	$20,000
Retained Earnings	255,000
Total Owners' Equity	____
Total Liabilities and Owners' Equity	$____

Which of these do you loan to and why?

Assume that you are considering investing in one of the companies. Which would you pay the most money for and why? Would you have any reservations about your investment in either company?

The Fudd Company

Elmer's Fudd Company was organized on Jan 1, 20x1 by selling 5,000 shares of common stock to the public for \$10 per share. On Feb 1, they rented a store. They paid the first years rent (rent starts on Feb 1) of \$2,400. Also on Feb 1, they bought fixtures and equipment for the store for \$12,000. They put 10% down and will pay the remainder in 5 equal annual payment which include interest at 10%. (The payments are ____________). They estimate the equipment and fixtures will last ten years and then be worthless. On March 1 they bought 6 Fudds for \$5,000 each. They paid 50% down and will pay the rest in one year. On June 1 they sold 3 Fudds for \$12,000 each. They sell for 25% down and the rest in one year. Paid utility bills of \$3,000. The tax rate is 30%. The taxes had not been paid by year end. The Company uses the LIFO inventory method. Paid salaries of \$3,000. At the end of the year they owed wages of \$1,000.

Make necessary adjustments and prepare financials

for 20x2

Paid all accounts payable for merchandise and received all accounts receivable.
Feb 1, made equipment payment
Mar 1, paid 20x1 taxes.
On Feb 1, bot 8 more Fudds at \$6,000 each, same terms as last year.
June 1, sold 4 Fudds for \$15,000 - same terms as last year.
July 1, purchase 4 Fudds at \$7,000 - same terms
Sept 1, sold 3 Fudds for \$16,000 - same terms
Oct 1, purchased three year insurance policy for \$3,600
November 1, borrowed \$120,000 from bank. Loan is repayable on Nov 1, 20x7. The company must pay 10% interest on Nov 1 of each year.
Dec 1, purchased a piece of land for \$50,000.
Dec 20th, received \$20,000 from accounts receivable
During the year they paid wages of \$8,000 in cash. At the end of the year they owed wages of \$2,000.
During the year they paid 11 months rent at \$200 per month and paid \$3,000 in utilities.
Tax rate is still 30% and an estimated tax payment of \$10,000 for 20x2 taxes was paid during the year.

Make necessary adjustments and prepare financials statements

How much would the company have made if they had used FIFO instead of LIFO?

Debbie and John want to put enough money in the bank today to pay for their daughters your college education. Baby Chris is precocious as heck and will be ready for OU in exactly five years. She will take $16,000 out of the bank at the beginning of each year for six years. If the bank pays interest at 6% (annually) how much must Debbie and John put in the bank today?

You are thinking of retiring in 4 years. You expect to live about 5 years after that. You have found a really neat mutual fund that averages 12% per year. You want to retire on $200,000 per year. You will take your first $200,000 on the day you retire. How much do you need to put in the bank today in order to have your dreams?

How would your answer change if you took the first check one year after you retired? (You still take 5 checks)

An added bonus- you are going to start making deposits today and once a year until one year before you retire. How much should each deposit be in order to meet this goal?

Review problem

A new company to consider

The Company was organized Jan 1, 20x2 to sell Thing-a-ma-Bobs. The company began by selling 3,000 shares of common stock for $20 each. For the first year, you rented the store from which you sold the Thing-a-ma-Bobs for $12,000 per year. They paid 11 months rent in 20x2. On Jan 1st, the company bought store fixtures for $10,000 cash. It is expected that these will last ten years and then be worthless. During the year you bot 1,000 Thing-a-ma-Bobs for $100 each. You paid ½ down and would pay the rest next year. You sold 800 for $200 each, (keystoning is ______________________________). Terms of the sales were ½ down and ½ next year . Other expenses paid during the year included wages of $15,000, utilities of $2,000, repairs and maintenance of $2,000, and miscellaneous expense of $1,000. On July 1st the company bot a one year fire insurance policy for $1,200.

To work- Prepare financials. (Don't forget the depreciation, what are you going to do about the insurance?)

During the **Second year**, you bought 1,200 tabs and sold 1,100. You bot the TABS for $110 and keystone them also. Terms of sale and purchase were the same. You paid off the A/P from last year and received all the receivables due you. You paid wages of $18,000 and you owed your worker $1,000 at the end of the year. You paid the same rent and other expenses. On July 1, you renewed your fire insurance, the cost went up to $1,500 which you paid in cash.

Bellows

The Bellows Fireplace Company came to you in January of last year and asked you to prepare financial statements for the year ended Dec 31, 20x2, their first year of operations. After preparing the financial statements, you set a basic bookkeeping system for the company. The following balances are from the financial statements you prepared and the company's bookkeeping system. (Most of the staff graduated from Miami, so you made a very very simple bookkeeping system based mostly on cash receipts and disbursements). All of the Company Balance figures are correct.

	Your Balance 12/31/02	**Company Balance 12/31/03**
Cash	$ 23,000	$ 69,500
Accts Rec	80,000	100,000
Inventory	60,000	50,000
Land	30,000	
Building	180,000	
Equipment	40,000	55,000
Accumulated Deprec	13,000	20,000
Accounts payable	20,000	15,000
Income taxes payable	30,000	
Wages payable	5,000	20,000
Interest Payable	2,375	
Note Payable- Ann	95,000	90,000
Common Stock	100,000	
Retained Earnings	147,625	

From the checkbook

cash receipts

Customers	$ 580,000	
Bank loan (6/30/x3)	100,000	Loan is repayable in five annual payments of $25,045.65, which include interest at 8%.
Sale of equipment	10,000	
Total cash receipts	690,000	

Cash disbursements

Cash paid for inventory,	$300,000.	
Cash paid for wages,	90,000.	
Cash paid for rent,	55,000	(rent is $5,000 per month)
Cash paid for utilities,	4,000	
Cash paid for new equipment	30,000	
Paid to Ann on note	14,500	
Purchase of Land	100,000	
Cash paid for corporate tax	50,000	
Total cash disbursements	643,500	

Bellows correctly calculated depreciation expense for the year at $10,000. The piece of equipment purchased for $30,000 was the only equipment purchase during the year and $30,000 was the full price. Interest on the Ann note is 10% per year. The corporate tax rate is 30%.

2.10