Problem Set 1
Solution

a) BSE Table

	Cash	A/R	Prepaid Rent	PPE	=	L	+	CC	RE, Revenues - Expenses	Notes
BB	0	0	0	0		0		0	0	Beginning Balance
1	50,000							50,000		Initial investment
2	-6,000			6,000						Computers
3	-8,000		8,000							Rent in advance
4	-500								-500	Dividends
5	-10,000								-10,000	Wage expense
6	-2,000								-2,000	Utility expense
7		30,000							30,000	Revenues
8	2,000	-2,000								Collection
EB	25,500	28,000	8,000	6,000	=	0		50,000	17,500	Ending Balance

You can stop here and still get full credit for part a) of this problem set. Note that:

1) Both utilities and wages were paid out, so they are charged immediately to equity (in particular, against retained earnings as an expense). There is no liability created when the employees have done their work *and* got paid, and when utilities are used *and* paid.
2) Dividends are paid out, charged against retained earnings. It is highly for dividends to be paid out before there are retained earnings, but hey, this is just a problem set.
3) Very similar to what we did in class (firm sold widgets, here TIM renders services), revenues are recognized as an increase in retained earnings, while account receivables go up.

A more complete answer has the following two additional events:

	Cash	A/R	Prepaid Rent	PPE	=	L	+	CC	RE, Revenues -Expenses	Notes
9			-8,000						-8,000	Rent expense
10				-1,000					-1,000	Depreciation for ½ year
EB’	25,500	28,000	0	5,000				50,000	8,500	

These two events do not have explicit transactions, but they are necessary to account for the use of resources (staying in the office, using computers for half a year) over time. They are examples of “adjusting entries” which we will discuss in the next class session.

b) The Balance Sheet information as of transaction 8) can be obtained from the row denoted EB in the table above. The Balance Sheet information as of transaction 10) can be obtained from the row denoted EB’.

My answers below will be based on including events 9) and 10). You will get full credit if your answers are based on transactions up to 8) only.

Balance Sheet of TIM, Inc
As of December 31, 2000

Assets:		Liabilities	0
Cash	25,500		
A/R	28,000	Equity	
		Contributed Capital	50,000
PPE	5,000	Retained Earnings	8,500
Total Assets	58,500	Total Liabilities and Equity	58,500

Since the balance sheet is a snapshot, it is important to label it as such: "as of December 31, 2000"

c)

Income Statement
For the period July 1, 2000 through December 31, 2000

Revenues	
Design services	30,000
Expenses	
Wages	-10,000
Utilities	-2,000
Rent	-8,000
Depreciation	-1,000
Net Income	9,000

Note that dividends are not part of the Income Statement. Also, since the income statement is supposed to denote what happened between two snapshots, it is important to label it appropriately: "for the period from July 1, 2000 though December 31, 2000".

c) Looking at the cash column, cash inflow is 52,000, and cash outflow is 26,500. However, we exclude the 50,000 inflow because it is a financing (raising capital) transaction, not directly related to operations. We also exclude 500 of dividends from cash outflows because dividend payments are also financing. You will learn later on that long-term investments like PPE do not properly belong to operations, but "investing". For now, let's ignore this detail.

d) Profits equal 9,000, even though net cash flow (operations and investments) is 2,000 – 26,000 = -24,000. TIM is still profitable despite a negative cash flow. TIM has Accounts Receivables of 28,000, and a computer worth 5,000, both of which have the capacity to generate cash in the future.

e) Permanent accounts are cash, accounts receivables, PPE, contributed capital and retained earnings. Note that even though prepaid rent got zeroed out, it is still considered a permanent account. Permanent accounts tend to maintain non-zero balances over fiscal periods. They are reported in the Balance Sheet.

Temporary accounts are Revenues and Expenses under Retained Earnings. They are temporary because whatever their balances are, they are always combined with Retained Earnings at the end of the fiscal period. Temporary accounts are created to facilitate the preparation of the Income Statement (since we need to separately report Revenues and Expenses).