CHAPTER 2

ANALYZING CHANGES IN THE <u>ACCOUNTING</u> EQUATION

A = L + OF

economic claims claim
resources creditors owner(s)

Topic 1 Terminology Business Transaction - a financial event that affects assets, liabilities or owner's equity simply means the event is expressed in terms of dollars or money

Drawings: a subelement decreasing owner's equity and resulting from the owner's withdrawal of assets for personal use.

Topic 2 - ANALYZING AN EXPANDED EQUATION

New Terms:

Revenue

Commissions

Expenses

Net Income

Net Loss

Topic 2 - Analyzing an Expanded Equation

- The primary purpose of a business is to increase the owner's equity by earning a profit over a specified period of time.

Revenue and Expense Transactions: financial events that determine the profit (or loss) of a business.

We will begin by analyzing revenue transactions

Revenue & Expenses show up under the Owner's Equity Section.

Revenue will increase OE Expenses will decrease OE Cash 1

REVENUE - an inflow of assets resulting from the sale of goods or services

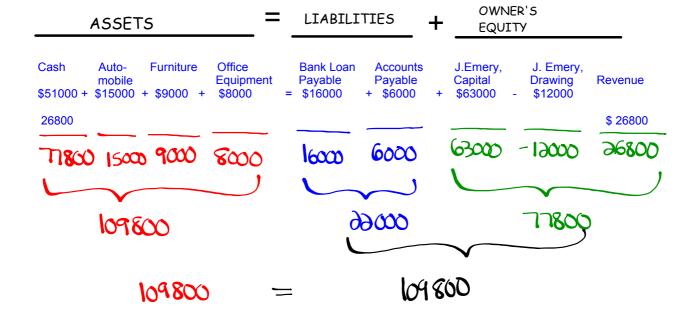
COMMISSIONS - the fees a business charges for buying or selling goods for example, real estate for clients (form of Revenue)

Transaction 8. We will continue with J. Emery Real Estate As at Oct. 31, J. Emery Real Estate has received \$26800 in cash, referred to as commission, for buying and selling homes, land and other forms of real estate for clients.

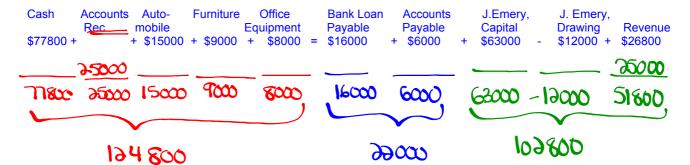


\$26800 must be shown on the right side of the equation but where?

A commission represents revenue earned for the business and a new heading REVENUE is added to the accounting equation. Owner's Equity increases and the accounting equation is balanced.



TRANSACTION 9 - On October 31st, J. Emery Real Estate earned commissions on credit by providing real estate services as follows: \$6000 for selling a building for Pat Rogers, \$4000 for selling a residence for R. Scobie and \$15000 for buying properties for Shannon Development Co. All clients were given 30 days in which to pay the commissions. 4000 + 6000 + 15000 = 25000



Accounts Receivable: an asset representing amounts due from customers.

We could say the business has claims on the property of these customers until their debts are paid.

Revenues increase cash or A/R

Does the inflow of cash automatically mean revenue has been earned by the business???

Here are some examples.

- 1. The inflow of cash resulting from a customer's paying a debt means an increase in one asset, Cash, and a decrease in another asset Acc. Rec
- 2. When a business gets cash from a bank, this inflow of cash is offset by an increase in liabilities usually in the form of a demand note payable to the bank.

When is Revenue Recognized?

- should it be recognized at the time the sale is made, or when the cash is received from the customer (accounts receivable)?

GAAPs (Broad accounting rules and guidelines)

Revenue Principle tells that revenue must be recognized as at the time of the sale of goods, or at the time of the rendering of service.

REVENUE PRINCIPLE: defines revenue, measures revenue and recognizes revenue.

Here are two rules to remember when revenue is recognized as being earned:

- 1. In <u>cash sales transactions</u> sales revenue is earned as at the time when the good or service is received by the buyer and cash is received by the seller.
- 2. In <u>credit sales</u>, revenue is normally recognized as at the time of the sale of goods or as at the time of the rendering a services, and when a sales invoice is available showing credit terms.

Revenue/Commission -> increase cash or accounts
receivable and increase owners
equity (revenue column)

Analyzing Expense Transactions

- all businesses have expenses, and for one reason only - to support the activities that create revenue.

Expenses are the costs of the goods or services <u>used up</u> by a business to earn revenue

The costs can be for goods or services

Examples of Expenses:

Salaries and Wages

Monthly Rent

Telephone

Advertising

Expenses -> Decrease Cash or Increase accounts
payable and Owner's equity
will decrease.

Expenses: costs incurred by a business in earning revenue

- 2 Main Questions to Ask to Recognize An Accounting Expense
- 1.) Was the cost incurred (or used up) to earn revenue or to assist in revenue-making activities during a specified time period.
- 2.) Does the cost reduce owner's equity in the accounting equation as well as reducing an asset or increasing a liability.

Transaction 10 - to create revenue, J. Emery Real Estate incurred several expenses. The business paid a total of \$6735 in cash as of Oct.31 for the following: Rent, \$1600; Salaries, \$4500; Utilities, \$595 and Telephone, \$40

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Cash
        Accounts Auto-
                          Furniture
                                    Office
                                               Bank Loan
                                                           Accounts
                                                                        J.Emery,
                 mobile
                                                Payable
                                                            Payable
                                                                        Capital
                                                                                    Drawing Revenue
        Rec
                                    Equip.
$77800 + $25000 + $15000 + $9000 + $8000 = $16000
                                                           $6000
                                                                      $63000 -
                                                                                   $12000 + $51800
-6735
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There is a decrease of \$6735 on the left side of the equation because cash is decreased.

Some element on the right side must decrease by a similar amount. What element is it?

Liabilities - No - because all of the expenses were paid in cash

Owner's Equity - Yes - but which?
J. Emery, Capital
J. Emery, Withdrawal
Revenue

None of these are correct why?

- J. Emery, Capital shows an increase through owner's investment
- J. Emery, Withdrawal shows a decrease to owner's equity through withdrawal of assets for the owner's personal use

Revenue - shows an increase to owner's equity through the inflow of cash and credit received from sales.

How can we record the decrease in owner's equity?

- by introducing a new heading EXPENSES

Assets					Liabilities			Owner's Equity				
Cash \$77800	Accts Rec + \$25000	Auto- mobile + \$15000	Furn.	Office Equip.	Pay	able	Accts Pay		Drawing	Revenue	Expense	
-6735	+ φ25000	+ \$15000	+ \$9000	+ \$6000	- \$10	000 +	\$0000	+ \$03000	- \$12000	+ \$31000	-6735	
\$71065	+ \$25000	+ \$15000	+ \$9000	+ \$8000	= \$16	000 +	\$6000	+ \$63000	- \$12000	+ \$51800	- \$6735	
	\$1	28065		:	= \$	5220	000	+	\$1	06065		

Note: The minus sign for expenses simply shows that this item causes a decrease to owner's equity in the accounting equation.

Transaction 11 - On October 31, J. Emery receives a bill for \$2000 from The City Record, a local newspaper, for running three advertisements at different times in October. The bill states that J. Emery Real Estate has a period of 30 days in which



GAAP's Expense Principle for recognizing expenses. Just as revenue was recognized as at a point of sale in an earlier section, the expense principle for recognizing expenses is:

Expenses must be recognized and recorded when they are incurred.

Expense principle: defines expense, measures expense, and recognizes expense

Does it matter when the expenses are paid for?

Why?

expenses must be recognized as soon as they are incurred because they directly offset the earning of revenue within the same time period.

Remember:

- Revenue is the inflow of cash and accounts receivable. ((ash \uparrow , A/R \uparrow)
- Expenses use up economic resources, or result in the outflow of assets ((ash), A/P \uparrow)

MATCHING REVENUE AND EXPENSES'

After accounting for revenue and expenses for a definite time period, for example one month, you subtract the total expenses from the total revenue earned to calculate the profit or loss for the period.

*** before you calculate you must make sure that revenues and expenses are <u>matched</u> for a specific time period.

Examples - to help understand the principle of matching - a GAAP

#1 Incorrect (December expenses are missing)	
Revenues (for Oct., Nov. and Dec.)\$15 000	
Expenses (for Oct., Nov.)	
PROFIT\$ 6 000	
#2 Incorrect (6 mths vs 12 mths) Revenues (for 6 months)	
Expenses (for 12 months) 60 000	
_OSS\$10 000	
#3 Over	
Revenues (for Year 2009)\$150 000 Revenue > Expense Expenses (for Year 2009)	I D
Revenues (for Year 2009)\$140 000 Expenses (for Year 2009)	K
NET LOSS\$ 20 000 (Net Loss)	

Based on the examples:

What is the matching principle?

In reporting the net profit or loss of a business for a financial period, revenues must be matched with their expenses.

MATCHING PRINCIPLE: revenues and expenses must be correlated to report the net income (net loss) for an accounting period.

- In other words revenues of a certain time period(called the financial or accounting period) must be matched with the related expenses incurred for that same period.

Note: the length of the time period can vary from one month, three months, six months or even a year.

Modern Term for Profit

previously we spoke of profit or loss, but in todays world we used the terms NET INCOME and NET LOSS. Going forward these are the terms you should use.

NET INCOME: the excess of revenue over expenses

NET LOSS: the excess of expenses over revenue

The word <u>NET</u> indicates that all revenues and all expenses have been reported and matched, for the same accounting period

APPLYING THE MATCHING PRINCIPLE TO THE ACCOUNTING EQUATION

- to apply the matching principle, you must rearrange the expanded section revenue and expenses of the accounting equation by:
 - placing total expenses under total revenue
- calculating the difference between the amounts and listing this as net income or net loss

Assets					Liabil	ities	Owner's Equity			
Cash	Accts Rec	Auto- mobile	Furn.	Office Equip.	Bk Loan Payable			J. Emery, Drawing	\$51800 - 6735	Revenue Expenses
\$71065	+ \$25000	+ \$15000	+ \$9000	+ \$8000	= \$16000	+ \$8000	+ \$63000	- \$2000 +	\$43065	Net Income

- Assume the matching principle has been verified
- Excess of revenue over related expenses is NET INCOME, a plus under OE
- OE will increase by the net income for the financial period.

If total expenses had exceeded the total revenue, the final result would have been a net loss (a minus amount). This would mean that the owner's equity for the period decreases by the amount of the loss.

In summary

- Revenue is the positive or plus part in calculating net income
- Expenses are the negative or minus part in calculating net income.
- -The difference between the two will determine whether the owner's equity increases (net income) or decreases (net loss) as a result of the business transactions for a certain time period.

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Owner's Equity

Net
Income
+$52 800 Revenue

Capital Drawing -8725 Expenses
$63000 - $2000 + $43 065 Increase
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Owner's Equity

Net

Loss

+$51 800 Revenue

Capital Drawing -80 000 Expenses

$63000 - $2000 - $28 200 Decrease
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Accts. Bank Loan H.Chan,

Cash Rec. Equip. = Payable Capital Revenue Expenses
$2510 + $1090 + $6400 = $1000 + $5000 + $8000 - $4000
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- a.) Rearrange the equation to show the matching of revenues and expenses for Sept.
- b.) Did this matching produce a net income or a net loss for the period? Explain

September 29, 2016

Concept Reinforcement
Page 44-45 Do P2-5, P2-6
Page 46 Do MC2-4, MC2-5 and MC2-6