COMMERCE 293
Financial Accounting
Final Exam
Review Session
Notes Package

Prepared by: Richard Wong
CUS Commerce Mentorship Program
COMM 293 - Intro to Financial Accounting
Final Exam Review Session
Tutor: Richard Wong

AGENDA

1. Cost of Goods Sold and Inventory (Ch. 8)
2. Property, Plant, and Equipment (Ch. 9)
3. Current Liabilities (Ch. 10)
4. Contingencies and Commitments (Ch. 10)
5. Bonds / Long-Term Liabilities (Ch. 11)
6. Shareholders’ Equity (Ch. 12)
7. Cash Flow Statements (Ch. 5)
8. Analyzing Financial Statements (Ch. 13)
Section 1: Cost of Goods Sold and Inventory

Inventory: Tangible items that are...

- Held for sale by a business OR
- Used to produce goods for sale in a business

Inventory is a current asset as it is generally used within 1 year.

Inventory is displayed on financial statements through:
- **Inventory** on the Balance Sheet
- **Cost of goods sold** on the Income Statement

**Cost of Goods Sold ("COGS"):** Cost of inventory sold by your business

1. Is an expense and is therefore **ALWAYS debited**

Two ways to calculate:

\[
\text{Number of goods sold} \times \text{Per Unit Cost} = \text{COGS}
\]

\[
\text{Beginning Inventory} + \text{Purchases} - \text{Ending Inventory} = \text{COGS}
\]

3 Inventory Costing Methods:

1. **Specific Identification**
   - Each item is individually identified and recorded
   - Used primarily for expensive items

2. **First in, First Out (FIFO)**
   - Earliest goods purchased are the earliest goods sold
3. Weighted Average

- COGS is based on the average cost per unit.

If unit costs are rising...
- FIFO provides the **lowest** cost of goods sold, the **highest** net income / gross profit, and the **highest** ending inventory.

If unit costs are declining...
- FIFO provides the **highest** cost of goods sold, the **lowest** net income / gross profit, and the **lowest** ending inventory.

Sample Questions

1. The Codfather is a fish market based out of Seattle, Washington. On January 1, they purchased 10 pink salmon for $5 each. (Fish #1-10)
   On January 5, they purchased an additional 10 pink salmon for $8 each. (Fish #11-20)
   On January 10, they purchased an additional 10 pink salmon for $10 each. (Fish #21-30)
   On January 12, a customer purchased 15 pink salmon from the Codfather for $20 each (They chose fish #1-10, 11-14, and 21 - The customer felt that there was something fishy about #15-20).

   a) What is the gross profit of the Codfather under each of the inventory costing methods?

<table>
<thead>
<tr>
<th>Specific ID</th>
<th>FIFO</th>
<th>Weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue: 20 x 15 = $ 300</td>
<td>Revenue: 20 x 15 = $ 300</td>
<td>Revenue: 20 x 15 = $ 300</td>
</tr>
<tr>
<td>Cost: 1-10 5 x 10 = $ 50</td>
<td>Cost: 1-10 5 x 10 = $ 50</td>
<td>Cost: 1-10 5 x 10 = $ 50</td>
</tr>
<tr>
<td>11-14 4 x 8 = $ 32</td>
<td>11-15 5 x 8 = $ 40</td>
<td>11-20 8 x 10 = $ 80</td>
</tr>
<tr>
<td>21 1 x 10 = $ 10</td>
<td>Total Cost: $ 90</td>
<td>21-30 10 x 10 = $ 100</td>
</tr>
<tr>
<td>Total Cost: $ 92</td>
<td></td>
<td>Total COGAS = $ 230</td>
</tr>
<tr>
<td>Gross profit = 300 - 92</td>
<td>Gross profit = 300 - 90</td>
<td>$ 230 / 30 = 7.67 per fish</td>
</tr>
<tr>
<td>Gross profit = 208</td>
<td>Gross profit = 210</td>
<td>7.67 / fish x 15 fish = 115</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total cost: 115</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gross profit: 185</td>
</tr>
</tbody>
</table>

   b) Which method produces the highest gross profit? **First in - first out**
2 Inventory Systems:

1. **Periodic**
   - Company physically counts inventory remaining @ end of period
   - Not as up to date, but easier and cheaper

   **PURCHASES:** Involve DR. a temporary account - “purchases”
   **REVENUES:** Recorded at **time of sale**
   **COGS:** Recorded **after** inventory count is completed

   *Purchases:*  
   DR. Purchases  
   CR. Accounts Payable

   *Sale to Customer:*  
   DR. Accounts receivable  
   CR. Sales revenue

   *After Inv. Count:*  
   DR. Cost of goods sold / Inventory  
   CR. Purchases

2. **Perpetual**
   - Inventory record adjusted after each transaction (purchase / sale)
   - Up to date, used for big companies

   **PURCHASES:** Involve DR. a balance sheet account - “**Inventory**”
   **REVENUES:** Recorded at **time of sale**
   **COGS:** Recorded at **time of sale**

   *Purchases:*  
   DR. Inventory  
   CR. Accounts Payable

   *Sale to Customer:*  
   DR. Accounts receivable  
   CR. Sales revenue

   ( 
   DR. Cost of goods sold  
   CR. Inventory

   **Inventory Turnover**  
   (Average inv = (This year + Last year) / 2

   \[
   365 \div \frac{\text{Cost of goods sold}}{\text{Average inventory}} = \text{Inventory Turnover (in days)}
   \]
2. Hairanoia sells industrial-strength hairdryers to professional hairdressers. They began the 2013 fiscal year with $4,500 in inventory.

On March 5, 2013, Hairanoia purchased $5,000 of inventory on credit.
On May 9, 2013, Hairanoia sold 10 hairdryers to Shear Madness for $4,500. The client paid in cash. The inventory cost the company $300 per unit.

a) Assuming that Hairanoia uses a **perpetual** inventory system, record the J/E for March 5.

<table>
<thead>
<tr>
<th>DR. Inventory</th>
<th>5,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Accounts payable</td>
<td>5,000</td>
</tr>
</tbody>
</table>

b) Assuming that Hairanoia uses a **perpetual** inventory system, record the J/E for May 9.

<table>
<thead>
<tr>
<th>DR. Cash</th>
<th>4,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Sales Revenue</td>
<td>4,500</td>
</tr>
<tr>
<td>DR. Inventory (300 x 10)</td>
<td>3,000</td>
</tr>
<tr>
<td>CR. Accounts payable</td>
<td>3,000</td>
</tr>
</tbody>
</table>

c) Assuming that Hairanoia uses a **periodic** inventory system, record the J/E for March 5.

<table>
<thead>
<tr>
<th>DR. Purchases</th>
<th>5,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Accounts payable</td>
<td>5,000</td>
</tr>
</tbody>
</table>

d) Assuming that Hairanoia uses a **periodic** inventory system, record the J/E for May 9.

<table>
<thead>
<tr>
<th>DR. Cash</th>
<th>4,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Sales Revenue</td>
<td>4,500</td>
</tr>
</tbody>
</table>

e) Hairanoia staff conducted a detailed inventory count on December 31. At that time, they found $6,500 in inventory remaining. They believe $500 of missing inventory is due to employee theft. Assuming that Hairanoia uses a **periodic** inventory system, record the J/E for December 31.

<table>
<thead>
<tr>
<th>DR. Cost of goods sold</th>
<th>3,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR. Inventory</td>
<td>2,000</td>
</tr>
<tr>
<td>CR. Purchases</td>
<td>5,000</td>
</tr>
</tbody>
</table>

Beginning Inventory + Purchases - Ending Inventory = COGS

4,500 + 5,000 - 6,500 = 3,000
3. Curl Up and Dye produces a line of hair dyes for professional hairdressers.

In 20XX, they had sales revenues of $500,000, a cost of goods sold of $300,000, equipment of $100,000, amortization expenses of $50,000, an ending inventory of $40,000, and income tax expenses of $50,000.

In 20XY, they had sales revenues of $400,000, a cost of goods sold of $281,250, equipment of $100,000, amortization expenses of $50,000, an ending inventory of $35,000, and income tax expenses of $25,000.

Competitors in the same industry have an inventory turnover of 40 days.

Calculate and interpret the company’s inventory turnover (in days) for 20XY.

**Calculation**

\[
\frac{281,250}{\frac{(35,000 + 40,000)/2)} = 7.5}
\]

365 / 7.5 = 48.67 days

**Interpretation**

- Higher than the industry average, not good

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**Section 2: Property, Plant, and Equipment**

**Capital Assets:** Property, Plant, and Equipment that provides long-term benefits to the company.

- Cannot be turned quickly into cash
- Examples: building, land, machinery

**Capitalize or Expense?:** Costs pertaining to a capital asset can either be capitalized or expensed

- Capitalized: Recognize as part of the equipment’s cost.
- Expensed: Debit an expense.
How can I tell whether to expense or capitalize something?

1. **Capitalize** ANY costs incurred to get an asset ready for use after purchase!
2. Once the asset is in use, only capitalize costs that **change the life or use of an asset**.
3. Costs incurred in maintaining, running, or working an asset is **expensed**.

**Net Book Value**: Purchase Price - Accumulated Amortization

**Useful Life**: How long the asset will last

**Salvage Value**: Estimated amount you will recover at end of useful life

4. Lord of the Fries is a fast-food restaurant in London. It is thinking about purchasing a new deep fryer and needs your help in determining what costs can be capitalized and what costs must be expensed.

<table>
<thead>
<tr>
<th>Item</th>
<th>Capitalize</th>
<th>Expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase / Contract price</td>
<td>Capitalize</td>
<td>Expense</td>
</tr>
<tr>
<td>Maintenance costs</td>
<td>Capitalize</td>
<td>Expense</td>
</tr>
<tr>
<td>Delivery costs</td>
<td>Capitalize</td>
<td>Expense</td>
</tr>
<tr>
<td>Delivery man’s (assume that Lord of Fries is paying for this)</td>
<td>Capitalize</td>
<td>Expense</td>
</tr>
<tr>
<td>Insurance on deep fryer</td>
<td>Capitalize</td>
<td>Expense</td>
</tr>
<tr>
<td>Installation costs</td>
<td>Capitalize</td>
<td>Expense</td>
</tr>
<tr>
<td>CEO’s Salary for Consultation on Equipment</td>
<td>Capitalize</td>
<td>Expense</td>
</tr>
<tr>
<td>Legal Fees for Reviewing Contract</td>
<td>Capitalize</td>
<td>Expense</td>
</tr>
</tbody>
</table>
Amortization / Depreciation: Allocating the cost of an asset over their useful life.

- Not the same as **market value**.

Amortization / Depreciation is displayed on financial statements thru:

- **INCOME STATEMENT**: amortization expense = Amortization for current year
- **BALANCE SHEET**: accumulated amortization = Total amortization to date

To calculate amortization / depreciation, you must have:

1. Cost of purchasing asset
2. Estimated useful life of asset
3. Estimated residual value of asset

**Methods of Amortization / Depreciation:**

1. **straight-line**
   - Equal portion amortized in each year of useful life
   - Net book value decreases by same amount each year until it reaches the **residual value**.

\[
\text{Amortization expense for 1 year} = \frac{\text{Cost} - \text{Residual Value}}{\text{Useful Life}}
\]

2. **units of production**
   - Amortization expense is dependent on production / use

\[
\text{Amortization exp. for 1 year} = \frac{\text{Cost} - \text{Residual Value}}{\text{Estimated Total Production}} \times \text{Actual Production for Year}
\]
3. double-declining balance

- Asset is more efficient when it’s new
- Salvage value is NOT considered in calculating amortization expense.
- Amortization expense increases with each year
- Asset’s **net book value** cannot fall under its **residual value**.

\[
\text{Amortization exp. for 1 year} = \text{Net book value} \times \left(\frac{2}{\text{Estimated Useful Life}}\right)
\]

where Net book value = **original cost** - accum. amortization

If asset is sold partway thru the year, amort. exp becomes:

\[
\text{Amortization exp.} = \text{Net book value} \times \left(\frac{2}{\text{Estimated Useful Life}}\right) \times \left(\frac{\text{Months elapsed in year}}{12 \text{ months}}\right)
\]

5. Pita Pan is a fast-food restaurant with three capital assets on its balance sheet: a building, a deep fryer, and a toaster. Information for these 3 assets are displayed below:

<table>
<thead>
<tr>
<th></th>
<th>Useful Life</th>
<th>Purchase Price</th>
<th>Residual Value</th>
<th>Amortization Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building</strong></td>
<td>20 years</td>
<td>$2,500,000</td>
<td>$500,000</td>
<td>Straight-Line</td>
</tr>
<tr>
<td><strong>Deep Fryer</strong></td>
<td>5 years</td>
<td>$100,000</td>
<td>$2,000</td>
<td>Double Declining</td>
</tr>
<tr>
<td><strong>Toaster</strong></td>
<td>100,000 toasts</td>
<td>$50,000</td>
<td>$10,000</td>
<td>Units of Production</td>
</tr>
</tbody>
</table>

Pita Pan purchased the deep fryer and toaster on January 1, 2013. The same cannot be said about the building. As of December 31, 2013, Pita Pan’s balance sheet displays accumulated amortization of $800,000, all of which pertains to the building.

a. In what year was the building purchased by Pita Pan?

2,500,000 - 500,000 = 2,000,000
2,000,000 / 20 years = 100,000 / year
800,000 / 100,000= 8 years
b. Calculate and prepare the journal entry for the amortization expense incurred on the building, deep fryer, and toaster in 2013.

**Building**

2,500,000 - 500,000 = 2,000,000 / 20 years = 100,000

<table>
<thead>
<tr>
<th>DR. Amortization expense</th>
<th>100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Accumulated amortization</td>
<td>100,000</td>
</tr>
</tbody>
</table>

**Deep Fryer**

100,000 (NBV) x (2 / 5) = 40,000

<table>
<thead>
<tr>
<th>DR. Amortization expense</th>
<th>40,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Accumulated amortization</td>
<td>40,000</td>
</tr>
</tbody>
</table>

**Toaster** - The toaster toasted 5,000 pitas during the year.

\[
\frac{(50,000 - 10,000)}{100,000} = 0.4 \text{ / toast} \nonumber \\
0.4 \text{ / toast} \times 5,000 = 2,000
\]

<table>
<thead>
<tr>
<th>DR. Amortization expense</th>
<th>2,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Accumulated amortization</td>
<td>2,000</td>
</tr>
</tbody>
</table>

**Disposal of Assets:**

- Take amortization expense up to the date of disposal
- Make entry for **cash**, **accumulated amortization**, **equipment**, and **gain or loss on sale**

<table>
<thead>
<tr>
<th>DEBIT</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>Equipment</td>
</tr>
<tr>
<td>Accumulated amortization</td>
<td></td>
</tr>
<tr>
<td>Loss on sale</td>
<td>Gain on sale</td>
</tr>
</tbody>
</table>
**Impairment / Damage of Assets:**

<table>
<thead>
<tr>
<th>DEBIT</th>
<th>Unrealized loss</th>
<th>CREDIT</th>
<th>Accumulated amortization</th>
</tr>
</thead>
</table>

**Change in Estimated Useful Life:**

<table>
<thead>
<tr>
<th>Straight-line</th>
<th>Units of Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ \frac{\text{$ left to depreciate}}{\text{Time left to depreciate}} ]</td>
<td>[ \frac{\text{$ left to depreciate}}{\text{Units left to depreciate}} \times \text{Actual Prod for Year} ]</td>
</tr>
</tbody>
</table>

6. Pita Pan’s auditor, Indiana Bones, dug up some new information pertaining to some of Pita Pan’s assets.

a. At the end of 2014, Indiana Bones re-estimated the toaster’s useful life to be 80,000 toasts. Calculate Pita Pan’s 2014 amortization expense assuming that they toasted 10,000 pitas during the year. A reminder that the residual value of the toaster is $10,000.

\[
\frac{\text{\$ left to depreciate}}{\text{units left to depreciate}} \times \text{actual production for the year}
\]

\[
\begin{align*}
50,000 - 10,000 &= 40,000 \\
80,000 - 5,000 &= 75,000 \\
38,000 &\div 75,000 = 0.5066666 \\
0.5066666 &\times 10,000 = 5,067
\end{align*}
\]

b. On July 1, 2014, the cook fell into the deep fryer and significantly dented its stainless steel exterior. Indiana Bones believes that the damage is worth $500. Prepare the J/E.

<table>
<thead>
<tr>
<th>DR. Unrealized loss</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Accumulated amortization</td>
<td>500</td>
</tr>
</tbody>
</table>

c. On December 31, 2014, Pita Pan decides to sell off its building to Wok This Way for $1,200,000 and relocate to a new location. Prepare the journal entry for the sale of the building.
Goodwill: Premium paid on the assets - liabilities of the company you acquire. Always debited. Appears on balance sheet as asset.

7. Pita Pan acquires Hindenburger, a fast-food restaurant. Their assets consist of cash ($40,000), Accounts Receivable ($100,000), and Inventory ($50,000). Their liabilities consist of Accounts Payable ($50,000) and a long term loan ($40,000). Their shareholders’ equity consists of common stock ($40,000) and retained earnings ($60,000).

Pita Pan paid $110,000 to acquire Hindenburger due to their extensive customer base.

a. Calculate the amount of goodwill on this transaction.

\[
40,000 + 100,000 + 50,000 - 50,000 - 40,000 = 100,000 \\
110,000 - 100,000 = 10,000
\]

b. Prepare the journal entry for the acquisition.

<table>
<thead>
<tr>
<th>DR. Cash</th>
<th>40,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR. Accounts receivable</td>
<td>100,000</td>
</tr>
<tr>
<td>DR. Inventory</td>
<td>50,000</td>
</tr>
<tr>
<td>DR. Goodwill</td>
<td>10,000</td>
</tr>
<tr>
<td>CR. Accounts payable</td>
<td>50,000</td>
</tr>
<tr>
<td>CR. Long term loan</td>
<td>40,000</td>
</tr>
<tr>
<td>CR. Cash</td>
<td>110,000</td>
</tr>
</tbody>
</table>

Section 3: Current Liabilities

Current Liabilities: obligations arising from past transactions that will be paid with assets/services within one year.
Note Payable:

When note is issued

DEBIT cash CREDIT notes payable

When interest is payable

DEBIT interest expense CREDIT interest payable

When interest is paid

DEBIT interest payable CREDIT cash

Repayment of note (with interest payment on day of repayment)

DEBIT interest payable CREDIT note payable
DEBIT cash

8. Vinyl Resting Place is a record shop in the Kitsilano area. On April 1, 2013, the company paid for equipment with a $100,000, 5%, 1-year note-payable with interest payable at maturity. Prepare all journal entries pertaining to Vinyl Resting Place assuming that the company has a December 31 year-end.

<table>
<thead>
<tr>
<th>Date</th>
<th>DR. Equipment</th>
<th>100,000</th>
<th>CR. Note payable</th>
<th>100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr. 1</td>
<td>DR. Equipment</td>
<td>100,000</td>
<td>CR. Note payable</td>
<td>100,000</td>
</tr>
<tr>
<td>Dec. 31</td>
<td>DR. Interest expense (100,000 x 5% x 9/12)</td>
<td>3,750</td>
<td>CR. Interest payable</td>
<td>3,750</td>
</tr>
<tr>
<td>Mar. 31</td>
<td>DR. Interest payable (100,000 x 5% x 3/12)</td>
<td>1,250</td>
<td>CR. Cash</td>
<td>112,250</td>
</tr>
</tbody>
</table>
Section 4: Contingencies and Commitments

Contingent Liabilities: Potential liabilities that arise as a result of transactions that have already occurred.

- Examples: lawsuits, warranties, etc.

<table>
<thead>
<tr>
<th></th>
<th>Likely</th>
<th>Possible</th>
<th>Unlikely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount can be</td>
<td>Contingent liability</td>
<td>Disclose in notes to the</td>
<td>No action</td>
</tr>
<tr>
<td>reasonably estimated</td>
<td></td>
<td>financial statements</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount cannot be</td>
<td>Disclose in notes to the</td>
<td>Disclose in notes to the</td>
<td>No action</td>
</tr>
<tr>
<td>reasonably estimated</td>
<td>financial statements</td>
<td>financial statements</td>
<td></td>
</tr>
</tbody>
</table>

**Warranties**

Estimate at year end. When warranty is undergone

DR. Warranty expense
CR. Estimated warranty liability

CR. SW. Invent. / Wage Pay.

If customer pays:

When warranty expires.

DR. Cash
CR. Warranty payable

CR. Warranty payable
CR. warranty revenue

**Lawsuits**

**Charity Payments**

DR. Claims expense
CR. Claims payable

DR. Obligation expense
CR. Obligation payable

9. Cane & Able is a manufacturer and retail distributor of medical supplies. The following occurred in 2013. Prepare the journal entry for each.
a. A patient was using one of Cane & Able’s wheelchairs when the wheelchair collapsed on them. Cane & Able is now the defendant in a lawsuit where the patient is seeking $4,000,000 in damages. The company’s lawyers feel it is highly probable that they can settle for $1,000,000.

<table>
<thead>
<tr>
<th>DR. Claims expense</th>
<th>100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Claims payable</td>
<td>100,000</td>
</tr>
</tbody>
</table>

b. Cane & Able signed a contract to purchase 100,000 boxes of band-aids for $2,000 in the following year. This allowed them to take advantage of a discount.

No journal entry - transaction has not occurred

c. At the end of the year, Cane & Able estimates its warranty liability for 2014 to be $100,000.

<table>
<thead>
<tr>
<th>DR. Warranty expense</th>
<th>100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Estimated warranty liability</td>
<td>100,000</td>
</tr>
</tbody>
</table>

d. On April 1, 2012, a customer purchased a one-year warranty on their electric scooter for $500. On January 1, 2013, $200 was used by a worker who adjusted the brake settings on the scooter.

<table>
<thead>
<tr>
<th>DR. Warranty payable</th>
<th>200</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Wages payable</td>
<td>200</td>
</tr>
<tr>
<td>DR. Warranty payable</td>
<td>300</td>
</tr>
<tr>
<td>CR. Wages revenue</td>
<td>300</td>
</tr>
</tbody>
</table>

---

Section 5: Bonds / Long-Term Liabilities

**Face Value**: Amount owed when the bond matures.

**Effective Interest Rate**: Rate of interest in the market.

**Coupon**: Interest paid to the bondholder.
**Discount or Premium?**
- Coupon rate = Effective Rate \textbf{at par}
- Coupon rate < Effective Rate \textbf{sold at discount}
- Coupon rate > Effective Rate \textbf{sold at premium}

**Semi-Annual?**  2 x the periods, ½ the coupon rate, ½ the eff. int rate.

**Issuing the Bond**

**Step 1**: Calculate present value of the face value

\[
\text{Face value} \times \text{PV (Effective interest \%, \# of Periods)}
\]

↑

\text{Use the PV table of a lump sum (all values below 1)}

**Step 2**: Calculate present value of the coupon payments

\[
\text{Face value} \times \text{Coupon Rate} \times \text{PV (Effective interest \%, \# of Periods)}
\]

↑

\text{Use the PV table of an annuity}

**Step 3**: Add PV of face value and PV of coupon payments together.

**Step 4**: Complete journal entry to record the transaction.

DR. Cash

**DR. Discount on bonds payable** OR **CR. Premium on Bonds Payable**

CR. Bonds Payable
Amortization of the Bond

<table>
<thead>
<tr>
<th>PV of Bond, Beg</th>
<th>+ Interest @ x %</th>
<th>- Coupon Payment</th>
<th>= Discount Addition or Premium Reduction</th>
<th>PV of Bond, End</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PV of Bond, Beg in Period 1 = PV of Bond

PV of Bond, End of all Periods = Face value of the Bond

Interest Payment

DR. Interest expense

DR. Premium on bonds payable OR CR. Discount on Bonds Payable

CR. Cash

Recall / Retirement of Bonds Before Maturity

Step 1: Calculate present value of the face value

Face value x PV (New Effective interest %, # of Periods Left)

Use the PV table of a lump sum (all values below 1)

Step 2: Calculate present value of the coupon payments

Face value x Coupon Rate x PV (New Effective interest %, # of Periods Left)

Use the PV table of an annuity

Step 3: Add PV of face value and PV of coupon payments together.
DR. Bond Payable   **Face Value**  
DR. Premium on bonds   OR   CR. Discount on bonds   **Do steps 1-3,**  
**face value - PV of the bond -- if positive, discount, if negative, premium**  
DR. Loss on redemption   OR   CR. Gain on redemption   **Difference**  
CR. Cash   **Stated value**  

**Capital vs. Operating Leases**  

You have a **capital lease** if any of these conditions are satisfied:  
- **title of asset changes** OR **lender allows borrower to buy equipment at a cost significantly below market value**  
- Lease term > **75%** of asset’s useful life  
- Present value of **lease payments** are > **90%** of its fair value  
- Asset is so specialized that only the borrower can use it.  

Treatment: **transfer of title, rewards, and risk**  
**borrower pays for damages, interest, amortization**  

You have an **operating lease** if no capital lease conditions are satisfied.  

Treatment: **Essentially a loan**   **DR. Asset**   **CR. Lease payable**  
**You do not bear risk, rewards, and title.**
10. Britches and Hose is a lingerie shop in Downtown Vancouver. They recently issued a $5 million, 10%, 5-year bond, dated February 1, 2013. Interest payments are semi-annual and are paid on August 1 and February 1. The bond was issued at a time when the market interest rate was 12%. The corporate year end of Britches and Hose is December 31. Britches and Hose called back its bonds at a price of 102 on February 1, 2015.

<table>
<thead>
<tr>
<th>Period</th>
<th>5.0%</th>
<th>6.0%</th>
<th>10.0%</th>
<th>12.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>0.7462</td>
<td>0.7050</td>
<td>0.5645</td>
<td>0.5066</td>
</tr>
<tr>
<td>7</td>
<td>0.7107</td>
<td>0.6651</td>
<td>0.5132</td>
<td>0.4523</td>
</tr>
<tr>
<td>8</td>
<td>0.6768</td>
<td>0.6274</td>
<td>0.4665</td>
<td>0.4039</td>
</tr>
<tr>
<td>9</td>
<td>0.6446</td>
<td>0.5919</td>
<td>0.4241</td>
<td>0.3606</td>
</tr>
<tr>
<td>10</td>
<td>0.6139</td>
<td>0.5584</td>
<td>0.3855</td>
<td>0.3220</td>
</tr>
</tbody>
</table>

PV of a Lump Sum

<table>
<thead>
<tr>
<th>Period</th>
<th>5.0%</th>
<th>6.0%</th>
<th>10.0%</th>
<th>12.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>5.0757</td>
<td>4.9173</td>
<td>4.3553</td>
<td>4.1114</td>
</tr>
<tr>
<td>7</td>
<td>5.7864</td>
<td>5.5824</td>
<td>4.8684</td>
<td>4.6638</td>
</tr>
<tr>
<td>8</td>
<td>6.4632</td>
<td>6.2098</td>
<td>5.3349</td>
<td>4.9676</td>
</tr>
<tr>
<td>9</td>
<td>7.1078</td>
<td>6.8017</td>
<td>5.7590</td>
<td>5.3282</td>
</tr>
<tr>
<td>10</td>
<td>7.7217</td>
<td>7.3601</td>
<td>6.1446</td>
<td>5.6502</td>
</tr>
</tbody>
</table>

PV of an Annuity

---

a. Prepare the journal entry for the issuance of the bond on February 1, 2013.

5,000,000 x (PV 6%, 10 periods)
5,000,000 x 0.5584 = 2,792,000

5,000,000 x 0.05 x (PV 6%, 10 periods)
5,000,000 x 0.05 x 7.3601 = 1,840,025

PV of bond: 4,632,025

<table>
<thead>
<tr>
<th>DR. Cash</th>
<th>4,632,025</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR. Discount on bonds payable</td>
<td>367,975</td>
</tr>
<tr>
<td>CR. Bonds payable</td>
<td>5,000,000</td>
</tr>
</tbody>
</table>

b. Prepare the journal entry for the first interest payment on August 1, 2013.

<table>
<thead>
<tr>
<th>PV of Bond, Beg</th>
<th>+ Interest @ 6 %</th>
<th>- Coupon Payment</th>
<th>= Discount Addition or Premium Reduction</th>
<th>PV of Bond, End</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,632,025</td>
<td>277,922</td>
<td>250,000</td>
<td>27,922</td>
<td>4,659,947</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DR. Interest expense</th>
<th>277,922</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Cash</td>
<td>250,000</td>
</tr>
<tr>
<td>CR. Discounts on bonds payable</td>
<td>27,922</td>
</tr>
</tbody>
</table>
c. Prepare the journal entry for the year end date of December 31, 2013.

<table>
<thead>
<tr>
<th>PV of Bond, Beg</th>
<th>+ Interest @ 6 %</th>
<th>- Coupon Payment</th>
<th>= Discount Addition or Premium Reduction</th>
<th>PV of Bond, End</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,659,947</td>
<td>279,597</td>
<td>250,000</td>
<td>29,597</td>
<td>4,689,543</td>
</tr>
</tbody>
</table>

5/6 x 279,597 = 232,997.50
5/6 x 250,000 = 208,333.33
5/6 x 29,597 = 24,644.17

<table>
<thead>
<tr>
<th>DR. Interest expense</th>
<th>232,997.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Interest payable</td>
<td>208,333.33</td>
</tr>
<tr>
<td>CR. Discount on bonds payable</td>
<td>24,644.17</td>
</tr>
</tbody>
</table>

d. Prepare the journal entry for the recall of the bond on February 1, 2015.

5,000,000 x (PV 6%, 6 periods)
5,000,000 x 0.7050 = 3,525,000

5,000,000 x 0.05 x (PV 6%, 6 periods)
5,000,000 x 0.05 x 4.9173 = 1,229,325

PV of bond: 4,754,325
5,000,000 - 4,754,325 = 245,675

1.02 x 5,000,000 = 5,100,000

<table>
<thead>
<tr>
<th>DR. Bonds payable</th>
<th>5,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR. Loss on bond redemption</td>
<td>345,675</td>
</tr>
<tr>
<td>CR. Discount on bonds payable</td>
<td>245,675</td>
</tr>
<tr>
<td>CR. Cash</td>
<td>5,100,000</td>
</tr>
</tbody>
</table>

Section 6: Shareholders’ Equity

Common Shares: voting shares of a company.

Issuance of Shares
- DR. Cash CR. Common Shares
Preferred Shares: Have access to **dividends** and **assets up on liquidation** before common shareholders.

**Issuance of Shares**
- DR. Cash  CR. Preferred Shares

**Stock Split:** Increase in total # of outstanding shares; no cash effect

**No journal entry required** - however, keep track of # of stocks

**Dividends:** Always pay preferred shareholders first.
**Cumulative Preferred Shares:** Dividends accumulate in years not paid

Example: If cumulative preferred shareholders are promised a $2 dividend each year and the company does not pay dividends in 2010, 2011, or 2012, they must provide $8 to the shareholders in 2013 if dividends are paid.

**Declaration of Dividend**
- DR. **dividends declared**  CR. **dividends payable**
- DR. Retained Earnings  CR. **dividends declared**

**Payment of Dividend**
- DR. **dividends payable**  CR. **cash**

**Stock Dividend:** Use of stocks (rather than cash) to pay dividends
- DR. Retained Earnings  CR. Common Shares

Remember!  
Beginning Retained Earnings + Net Income - Dividends = Ending Retained Earnings
Buy Back of Shares: Be aware of the balance in contributed surplus!

- DR. Common Shares (Average Value of Shares in Your Books)
- CR. Cash (Market Value of Shares)
- **Difference**: CR. Contributed surplus  OR
- DR. Contributed surplus (if there is a value in contributed surplus) or Retained Earnings (if there is nothing in contributed surplus)

11. Udder Delights is a publicly traded manufacturer of milk chocolate in Burnaby, British Columbia. They would be “udderly” delighted if you can assist them in journalizing these 2013 transactions pertaining to shareholders’ equity. The transactions occurred in the order in which they appear. Make sure you use your T-Accounts or these questions can take a moo-lennium to finish.

At the beginning of the year, the company had $2,000 in contributed surplus, 100,000 cumulative, preferred shares with a book value of $800,000, and no common shares outstanding.

a. The company issued 500,000 common shares and 200,000 cumulative, preferred shares. The common shares were trading in the market for $5 / share and the preferred shares were trading at $10 / share.

<table>
<thead>
<tr>
<th>DR. Cash</th>
<th>4,500,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Common shares (500,000 x 5)</td>
<td>2,500,000</td>
</tr>
<tr>
<td>CR. Preferred shares (200,000 x 10)</td>
<td>2,000,000</td>
</tr>
</tbody>
</table>

b. The company issued an additional 100,000 common shares at $5.50 / share.

<table>
<thead>
<tr>
<th>DR. Cash (100,000 x 5.50)</th>
<th>550,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Common shares</td>
<td>550,000</td>
</tr>
</tbody>
</table>

c. A 2-for-1 stock split was announced.

No journal entry required
d. The company bought back 300,000 common shares for $3.00 / share

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR. Common shares</td>
<td>762,500</td>
</tr>
<tr>
<td>(3,050,000 / 1,200,000 x 300,000)</td>
<td></td>
</tr>
<tr>
<td>DR. Contributed surplus</td>
<td>2,000</td>
</tr>
<tr>
<td>DR. Retained earnings</td>
<td>135,500</td>
</tr>
<tr>
<td>CR. Cash (3 x 300,000)</td>
<td>900,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Common Shares</th>
<th>Preferred Shares</th>
<th>Contributed Surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


e. The company declared cash dividends of $900,000 at the end of the year. Dividends were not paid to preferred shareholders in 2012 and the company has promised them dividends of $2 per year.

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR. Dividends declared - preferred</td>
<td>800,000</td>
</tr>
<tr>
<td>DR. Dividends declared - common</td>
<td>100,000</td>
</tr>
<tr>
<td>CR. Dividends payable</td>
<td>900,000</td>
</tr>
</tbody>
</table>

| DR. Retained earnings         | 900,000                     |
| CR. Dividends declared - preferred | 800,000                     |
| CR. Dividends declared - common | 100,000                     |


f. The company paid the dividends.

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR. Dividends payable</td>
<td>100,000</td>
</tr>
<tr>
<td>CR. Cash</td>
<td>100,000</td>
</tr>
</tbody>
</table>


g. The company declared a 10% stock dividend to be paid immediately. The current market value of Udder Delights’ shares is $5.50 / share.

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR. Retained earnings (900,000 shares x 10% x 5.50)</td>
<td>495,000</td>
</tr>
<tr>
<td>CR. Common Shares</td>
<td>495,000</td>
</tr>
</tbody>
</table>
Section 7: Cash Flow Statement

1. Start with net income

2. Add back amortization (non-cash)

3. Add back losses, subtract all gains.

4. Adjust for operating activities

   Inflows: Sales, Interest received, A/R collected
   Outflows: Purchases, Salaries and wages, Income taxes, Interest

5. Adjust for investing activities

   Inflows: Sale of PPE
   Outflows: Purchase of PPE

6. Adjust for financing activities

   Inflows: Borrowing on notes, mortgages, bonds
   Outflows: Repayments of notes, mortgages, bonds, Dividends

7. Sum to get net increase (decrease) in cash.
12. Sew & Tell is a manufacturer of sewing machines in Louisville. During 2013, they were engaged in the following transactions. Please indicate the section (operating, investing, or financing) of the cash flow statement that is affected and by how much it is affected.

a. Increased accounts receivable account balance from $10,000 in 2012 to $15,000 in 2013.

   Operating activities - (5,000)

b. Sold machinery to Shear Madness for $10,000

   Investing activities - 10,000

c. Paid dividends of $5,000

   Financing activities - (5,000)

d. Issued long-term note payable for $5,000

   Financing activities - 5,000

e. Loss on sale of equipment of $10,000

   None - non-cash item

f. Incurred amortization expense on equipment of $15,000

   None - non-cash item

g. Collected $200 of accounts receivable.

   Operating - 200

h. Increased accounts payable account balance from $5,000 in 2012 to $10,000 in 2013.

   Operating - 5,000

i. Issued 100 preferred shares for $10,000.

   Financing - 10,000
Section 8: Analyzing Financial Statements

Refer to Chapter 13 Notes for formulas.

Profitability: How profitable is the company

- **Gross Profit %** (Gross profit / Sales):
  - Look for significant decreases from year to year. <= TROUBLE

- **Fixed Asset Turnover** (Net sales revenue / Average net fixed assets):
  - As high as possible
  - Means you’re getting the most out of your assets.

- **Return on Assets** ((NI + Interest Exp) / Avrg Ttl Assets):

- **Basic Earnings Per Share** (Income available to common shareholders / weighted avrg common shares outstanding):
  - How much income each common shareholder is making

- **Return on Equity** (Income / Avrg Shareholders’ Equity):
  - Always bigger than ROA (look at denominator)

Liquidity: Firm’s ability to meet short term obligations.

- **Current Ratio** (Current assets / Current liabilities)
  - Ability to pay current debts as they become due
  - Perfect: 2
• **Quick Ratio** \( ((\text{Cash} + \text{A/R}) / \text{Current liabilities}) \)
  - Leaves out inventories; assumes it is not liquid
  - Perfect: 1

• **Receivables Turnover** (Sales / Average A/R)

• **Inventory Turnover** (Cost of goods sold / Avrg inventory)

• **Payables Turnover** \( ((\text{COGS} + \text{Other Exp}) / \text{Average A/P + Accruals}) \)
  - Compare to other companies in industry
  - Compare from year to year

**Solvency**: Firm’s ability to meet long term obligations.

• **Times Interest Earned** (Income before interest and taxes / Interest)

• **Debt to Equity Ratio** (Total liabilities / Total equity)

**Market Value Ratios**

• **Price-Earnings Ratio** (Stock market price / Basic EPS)
  - Fairly similar for firms in the same industry
  - Quick and dirty indictor of growth

• **Dividend Yield** (Dividends per share / Stock price per share)
**Tips for Financial Analysis Questions:**

1. Don’t calculate ALL the ratios unless asked.
2. Typical question: Some transaction occurs, how is the ratio affected.
   
   a. Understand the numerator and denominator
      Ex. If you pay dividends, your return on equity will increase because R/E is a part of Shareholders’ Equity and “Average Shareholders’ Equity” is in the denominator.

   b. If unsure, pick some fictional numbers and simulate the effect.

   c. Certain ratios are easier and more intuitive to analyze:
      i. Gross profit % (does it change from year to year?), Return on assets, Basic EPS, Return on equity, Current ratio, Quick ratio, Receivable/Inventory/Payable Turnovers, Debt to Equity Ratio, Dividend Yield

   d. Things to always consider:
      i. What happens to the ratio from year to year?
      ii. How does the ratio compare with other firms in the same industry?
      iii. Does a ratio seem abnormally high or low (0.1 current ratio, for example)