Chapter 13—Corporations: Share Capital and the Balance Sheet

CHAPTER OVERVIEW

In Chapter 12 you learned about the partnership form of organization. In this chapter, we begin an in-depth discussion of the corporate form of organization. Because the corporate form is more complex than either proprietorships or partnerships, our discussion of corporations continues in Chapters 14, 15, and 16. Therefore, it is important to understand the topics in this chapter before continuing to the next chapter. The learning objectives for this chapter are to

1. Identify the characteristics of a corporation.
2. Record the issuance of shares.
3. Prepare the shareholders’ equity section of a corporation’s balance sheet.
4. Account for cash dividends.
5. Use different share values in decision making.
6. Evaluate a company’s return on assets and return on shareholders’ equity.
7. Account for a corporation’s income tax.

CHAPTER REVIEW

Objective 1 - Identify the characteristics of a corporation.

1. A corporation is a separate legal entity chartered and regulated under federal or provincial jurisdiction. The owners’ equity of a corporation is held by shareholders as shares of stock.
2. A corporation has continuous life and transferability of ownership. A change in ownership of the shares does not affect the life of the corporation.
3. Mutual agency of owners is not present in corporations. A shareholder cannot commit a corporation to a binding contract (unless that shareholder is also an officer of the corporation).
4. Shareholders have limited liability. That is, they have no personal obligation for the debts of the corporation.
5. Ownership and management are separated. Corporations are controlled by boards of directors who appoint officers to manage the business. Boards of directors are elected by shareholders. Thus, shareholders are not obligated to manage the business; ownership is separate from management.
6. Corporations pay taxes such as federal and provincial income taxes. Corporations pay dividends to shareholders who then pay personal income taxes on their dividends. This is considered double taxation of corporate earnings, although Canada’s tax laws try to minimize double taxation.
7. Corporations are subject to more government regulation than proprietorships or partnerships.

Exhibit 13-1 in your text summarizes the advantages and disadvantages of a corporation.

Corporations come into existence through the government approval of its articles of incorporation. Bylaws are then adopted. The shareholders elect a board of directors, who appoint the officers of the corporation. (Review Exhibit 13-2 in your text.)
Owners receive share certificates for their investment. The basic unit of investment is a share. A corporation’s outstanding shares are the shares that are held by shareholders. Shareholders’ equity is reported differently than owners’ equity of a proprietorship or a partnership because corporations must report the sources of their capital. These sources are contributed capital, which represents investments in share capital by the shareholders of the corporation, and retained earnings. Generally, contributed capital is not subject to withdrawal. Retained Earnings is the account that at any time is the sum of earnings accumulated since incorporation, minus any losses, and minus all dividends distributed to shareholders. Revenues and expenses are closed into Income Summary and then Income Summary is closed to Retained Earnings. To close net income, debit Income Summary and credit Retained Earnings. To close net loss, debit Retained Earnings and credit Income Summary.

Shareholders have four basic rights:

1. to participate in management by voting,
2. to receive a proportionate share of any dividend,
3. to receive a proportionate share of the remaining assets after payment of liabilities in the event of liquidation, and
4. to maintain a proportionate ownership in the corporation (preemptive right).

Shares may be common or preferred and have a par value or no-par value. Par value is an arbitrary value that a corporation assigns to a share. The Canada Business Corporations Act and most provincial incorporating acts require common and preferred shares to be issued without par value. Different classes of common or preferred shares may also be issued. Each class of common or preferred shares is recorded in a separate general ledger account. Preferred shareholders receive their dividends before common shareholders and take priority over common shareholders in the receipt of assets if the corporation liquidates.

The corporate charter specifies the number of shares a corporation is authorized to issue. The corporation is not required to issue all the shares it is authorized to issue.

Review the “Stop & Think” section on page 693 in your text.

Objective 2 - Record the issuance of shares.

If a corporation sells common shares for cash, the entry to record the transaction is:

\[
\begin{align*}
\text{Cash} & \quad \text{XX} \\
\text{Common Shares} & \quad \text{XX}
\end{align*}
\]

When a corporation receives non-cash assets as an investment, the assets are recorded by the corporation at their current market value.

Accounting for preferred shares follows the same pattern as accounting for common shares. The difference is that instead of the word “Common,” the word “Preferred” will appear in the titles of the general ledger accounts.
**Contributed Surplus**, which is reported within the Contributed Capital section of Shareholders’ Equity, following the Preferred and Common Shares sections, is the account credited when the corporation receives an amount in excess of the original value for the sale of repurchased shares (discussed in Chapter 14).

Businesses that begin as a proprietorship or a partnership often incorporate at a later date. To account for the incorporation of a going business, you need to close the owner equity accounts of the prior entity and set up the shareholders’ equity accounts of the corporation. You simply need to close the capital accounts of the proprietorship or partnership and issue common shares to the incorporators.

Any costs incurred to incorporate are called **Organization Costs** and are classified as an *intangible asset*. The costs are then amortized, typically over a short period of time.

**Objective 3 - Prepare the shareholders’ equity section of a corporation’s balance sheet.**

Preferred shares always appear before common shares in the shareholders’ equity section of the balance sheet.

The format of the shareholders’ equity section of the balance sheet is:

```
Shareholders’ Equity
Contributed capital:
Preferred shares, number of shares authorized, number of shares issued XX
Common, number of shares authorized, number of shares issued XX
Contributed surplus—share repurchases XX
Total contributed capital XX
Retained earnings XX
Total shareholders’ equity XX
```

**Study Tip:** Review the Decision Guidelines *Reporting Shareholders’ Equity on the Balance Sheet* in your text.

A **dividend** is a distribution of cash to the shareholders of a corporation. A dividend must be declared by the board of directors before the corporation can pay it. Once a dividend has been declared, it is a legal liability of the corporation. On the **declaration date**, the board also announces the **date of record** and the **payment date**. Those owning the shares on the date of record will receive the dividend. The payment date is the date the dividends are actually mailed.
Objective 4 - Account for cash dividends.

When a dividend is declared, this entry is recorded:

\[ \begin{align*}
\text{Retained Earnings} & \quad \text{XX} \\
\text{Dividends Payable} & \quad \text{XX}
\end{align*} \]

Dividends Payable is a current liability.

The date of record falls between the declaration date and the payment date and requires no journal entry. The dividend is usually paid several weeks after it is declared. When it is paid, this entry is recorded:

\[ \begin{align*}
\text{Dividends Payable} & \quad \text{XX} \\
\text{Cash} & \quad \text{XX}
\end{align*} \]

Preferred shareholders have priority over common shareholders for receipt of dividends. In other words, common shareholders do not receive dividends unless the total declared dividend is sufficient to pay the preferred shareholders first.

Preferred shares usually carry a stated dollar amount per share. Shareholders holding “$3 preferred” shares would receive a $3 annual cash dividend. The dividend to common shareholders will equal:

\[ \text{Common dividend} = \text{Total dividend} - \text{Preferred dividend} \]

Corporations sometimes fail to pay a dividend to their preferred shareholders. The missed dividends are said to be in arrears. **Cumulative preferred shares** continue to accumulate annual dividends until the dividends are paid. Therefore, a corporation must pay all dividends in arrears to cumulative preferred shareholders before it can pay dividends to other shareholders. If the shares are not designated as being “cumulative”, the corporation has no obligation to the preferred shareholders for years when no dividends were declared.

Dividends in arrears are not liabilities, but are disclosed in notes to the financial statements. Noncumulative preferred shares do not accumulate dividends in arrears.

**Convertible preferred shares** may be exchanged by the holder for another class of shares. Suppose you have 200 preferred shares and each share can be converted into four common shares. If the market value of 800 common shares exceeds the market value of 200 convertible preferred shares, conversion would be to your advantage.

The entry to record the conversion is:

\[ \begin{align*}
\text{Preferred Shares} & \quad \text{XX} \\
\text{Common Shares} & \quad \text{XX}
\end{align*} \]

A company would record the conversion at the value of the preferred shares being converted.
Objective 5 - Use different shares values in decision making.

Market value (market price) is the price at which a person could buy or sell a share. Daily newspapers report the market price of many publicly traded shares. In addition, many Internet sites provide up-to-the-minute share prices.

Preferred shares may also be issued with a liquidation value. This is the amount the corporation agrees to pay preferred shareholders if the company liquidates. Dividends in arrears are added to liquidation value to determine the amount to be paid if liquidation occurs.

The liquidation value of a share is equal to the net realizable value of the assets less the cash required to pay the liabilities divided by the number of shares outstanding.

Book value is the amount of shareholders’ equity per share. If only common shares are outstanding:

\[
\text{Book value} = \frac{\text{Total shareholders’ equity}}{\text{Number of shares outstanding}}
\]

If both preferred and common shares are outstanding, preferred shareholders’ equity must be calculated first. If preferred shares have no liquidation value, then total preferred equity in the equation below is equal to the balance in Preferred Shares. If preferred shares have a liquidation value, then total preferred equity in the equation below equals the total liquidation value (liquidation value per share \(\times\) number of preferred shares).

\[
\text{Preferred book value} = \frac{\text{Total preferred equity} + \text{Dividends in arrears}}{\text{Number of preferred shares outstanding}}
\]

\[
\text{Common book value} = \frac{\text{Total equity} - (\text{Total preferred equity} + \text{Dividends in arrears})}{\text{Number of common shares outstanding}}
\]

Objective 6 - Evaluate a company’s return on assets and return on shareholders’ equity.

1. Rate of return on total assets = \(\frac{\text{Net income} + \text{Interest expense}}{\text{Average total assets}}\)

The return on total assets (or return on assets) measures how successfully the company was in using its (average) assets to earn a profit.

2. Rate of return on common shareholders’ equity = \(\frac{\text{Net income} - \text{Preferred dividends}}{\text{Average common shareholders’ equity}}\)

The denominator, average common shareholders’ equity, is equal to total shareholders’ equity minus preferred equity.

The rate of return on common shareholders’ equity also measures profitability of the company. The return on equity should always be higher than the return on assets.
Objective 7 - Account for a corporation’s income tax.

Because corporations have a distinct legal identity (they have the right to contract, to sue, and be sued—just as individuals have these rights), their income is taxed just like individuals. However, unlike individuals, the amount of tax actually paid will differ from the expense incurred for the period (for individuals, these amounts are generally the same). The difference results from the following:

Income tax expense is calculated by multiplying the applicable tax rate by the amount of pre-tax accounting income as reported on the income statement, while income tax payable is calculated by multiplying the applicable tax rate by the amount of taxable income as reported on the corporate tax return. Because these results will differ, a third account, Future Income Tax Asset or Future Income Tax Liability, is used to reconcile the entry, as follows:

<table>
<thead>
<tr>
<th>Account</th>
<th>XX</th>
<th>XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income Tax Expense</td>
<td>XX</td>
<td></td>
</tr>
<tr>
<td>Income Tax Payable</td>
<td></td>
<td>XX</td>
</tr>
<tr>
<td>Future Tax Liability</td>
<td></td>
<td>XX</td>
</tr>
</tbody>
</table>
### TEST YOURSELF

All the self-testing materials in this chapter focus on information and procedures that your instructor is likely to test in quizzes and examinations.

**Matching**  
*Match each numbered term with its lettered definition.*

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. authorized</td>
<td>A. an account that reconciles the difference between income tax expense and income tax payable</td>
</tr>
<tr>
<td>2. book value</td>
<td>B. a corporation’s capital that is earned through profitable operation of the business</td>
</tr>
<tr>
<td>3. chairperson of the board</td>
<td>C. a corporation’s capital from investments by the shareholders</td>
</tr>
<tr>
<td>4. convertible shares</td>
<td>D. a debit balance in the retained earnings account</td>
</tr>
<tr>
<td>5. cumulative shares</td>
<td>E. a group elected by the shareholders to set policy for a corporation and to appoint its officers</td>
</tr>
<tr>
<td>6. declaration date</td>
<td>F. an agent of a corporation for the purposes of selling its shares to the public</td>
</tr>
<tr>
<td>7. contributed surplus</td>
<td>G. the account created when a corporation receives an amount in excess of what shares were originally recorded</td>
</tr>
<tr>
<td>8. liquidation value</td>
<td>H. a shareholder’s right to maintain a proportionate ownership in a corporation</td>
</tr>
<tr>
<td>9. market value</td>
<td>I. an arbitrary amount assigned to a share</td>
</tr>
<tr>
<td>10. outstanding shares</td>
<td>J. an elected person on a corporation’s board of directors who is usually the most powerful person in the corporation</td>
</tr>
<tr>
<td>11. stated value</td>
<td>K. the date the board of directors announces the intention to pay a dividend</td>
</tr>
<tr>
<td>12. preferred shares</td>
<td>L. distributions by a corporation to its shareholders</td>
</tr>
<tr>
<td>13. shareholders’ equity</td>
<td>M. means that the most that a shareholder can lose on his investment in a corporation’s shares is the cost of the investment</td>
</tr>
<tr>
<td>14. retained earnings</td>
<td>N. owners’ equity of a corporation</td>
</tr>
<tr>
<td>15. future income tax asset or liability</td>
<td>O. similar to par value</td>
</tr>
<tr>
<td>16. board of directors</td>
<td>P. preferred shares that may be exchanged by the shareholders, if they choose, for another class of shares in the corporation</td>
</tr>
<tr>
<td>17. bylaws</td>
<td>Q. preferred shares whose owners must receive all dividends in arrears before the corporation pays dividends to the common shareholders</td>
</tr>
<tr>
<td>18. articles of incorporation</td>
<td>R. pre-tax accounting income times the tax rate</td>
</tr>
<tr>
<td>19. common shares</td>
<td>S. shares in the hands of shareholders</td>
</tr>
<tr>
<td>20. deficit</td>
<td>T. shares that gives its owners certain advantages such as the priority to receive dividends and the priority to receive assets if the corporation liquidates</td>
</tr>
<tr>
<td>21. dividends</td>
<td></td>
</tr>
<tr>
<td>22. limited liability</td>
<td></td>
</tr>
<tr>
<td>23. share capital</td>
<td></td>
</tr>
<tr>
<td>24. par value</td>
<td></td>
</tr>
<tr>
<td>25. preemptive right</td>
<td></td>
</tr>
<tr>
<td>26. underwriter</td>
<td></td>
</tr>
<tr>
<td>27. income tax expense</td>
<td></td>
</tr>
<tr>
<td>28. income tax payable</td>
<td></td>
</tr>
</tbody>
</table>

A.  
B.  
C.  
D.  
E.  
F.  
G.  
H.  
I.  
J.  
K.  
L.  
M.  
N.  
O.  
P.  
Q.  
R.  
S.  
T.  

38 Chapter 13  Copyright © 2008 Pearson Education Canada
U. the amount that a corporation agrees to pay a preferred shareholder per share if the company liquidates
V. the amount of owners’ equity on the company’s books for each of its shares
W. taxable income times the tax rate
X. the constitution for governing a corporation
Y. the documents submitted to the either the federal or provincial government for permission to form a corporation
Z. the most basic form of share capital
AA. the price for which a person could buy or sell a share
BB. the maximum number of shares a corporation may issue

II. Multiple Choice   Circle the best answer.

1. The corporate board of directors is:
   A. appointed by the federal government  
   B. elected by management  
   C. elected by the shareholders  
   D. appointed by corporate officers

2. A shareholder has no personal obligation for corporation liabilities. This is called:
   A. mutual agency  
   B. limited agency  
   C. transferability of ownership  
   D. limited liability

3. Stated value has the same meaning as:
   A. market value  
   B. par value  
   C. book value  
   D. liquidation value

4. A share certificate shows all of the following except:
   A. contributed surplus  
   B. shareholder name  
   C. type of share  
   D. company name

5. The ownership of shares normally entitles common shareholders to all of the following rights except:
   A. right to receive guaranteed dividends  
   B. voting right  
   C. preemptive right  
   D. right to receive a proportionate share of assets in a liquidation

6. When a corporation declares a cash dividend:
   A. liabilities decrease, assets decrease  
   B. assets decrease, retained earnings decreases  
   C. assets decrease, retained earnings increases  
   D. liabilities increase, retained earnings decrease
7. When a corporation pays a cash dividend:
   A. liabilities decrease, assets increase
   B. assets decrease, retained earnings decreases
   C. liabilities decrease, assets decrease
   D. retained earnings decrease, liabilities increase

8. When a company issues shares in exchange for assets other than cash, the assets are recorded at:
   A. market value
   B. original cost
   C. book value
   D. replacement cost

9. Dividends Payable is a(n):
   A. expense
   B. current liability
   C. contributed capital account
   D. shareholders’ equity account

10. Dividends in arrears on preferred shares are reported:
    A. on the balance sheet
    B. as a reduction of retained earnings
    C. on the income statement
    D. as a footnote to the financial statements

III. Completion  Complete each of the following.

1. Every corporation issues ___________________________ shares.
2. The corporation’s constitution is called the ___________________________.
3. Preferred shareholders have preference over common shareholders in ___________________________
   and _____________________________.
4. Dividends are declared by _____________________________.
5. Taxable income times the applicable tax rate equals _____________________________.
6. Shareholders’ equity minus preferred equity equals _____________________________.
7. The date of ___________________________ determines who receives the dividend.
8. The ___________________________ date establishes the liability to pay a dividend.
9. The price at which a share is bought or sold is called the ___________________________ value.
10. Corporations come into existence when the ___________________________ are approved by the government.
### IV. Daily Exercises

1. Arrange the following shareholders’ equity items in the correct sequence as they would appear on a balance sheet.

   - Total contributed capital
   - Common shares
   - Retained earnings
   - Preferred shares
   - Total shareholders’ equity
   - Contributed surplus—share repurchases
   - Contributed capital

2. A company issues 40,000 common shares for $30 per share. Record this transaction (omit explanation).

3. Review the information in the Daily Exercise #2 but assume the 40,000 common shares were issued in exchanged for land and building that had a market value of $930,000. The land was appraised at 1/3 of the total value. Record this transaction.
4. On May 10, the board of directors declares an annual dividend of $40,000, payable on June 30, to shareholders of record on May 30. Make the journal entries to record the declaration date, record date, and payment date.

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Refer to the information in Daily Exercise #4 and assume the company has 8,000 $2.50 preferred shares issued and 20,000 common shares. The preferred shares are non-cumulative, and this is the first dividend the corporation has declared since the shares were issued two years ago. Calculate the amount due to each class of shareholder.

6. Refer to the information in Daily Exercise #5, but assume the preferred shares are cumulative. Calculate the amount due each class of shareholder.

V. Exercises

1. The articles of incorporation of Kool.com authorize the issuance of 100,000 preferred shares and 900,000 common shares. During the first year of operation, Kool.com completed the following share-issuance transactions:

   2008
   Sept. 1  Issued 80,000 common shares for cash of $20 per share.
   Sept. 10 Issued 10,000 $2 preferred shares. The issue price was cash of $80 per share.
   Sept. 28 Received inventory valued at $40,000 and equipment with a market value of $90,000 in exchange for 4,000 common shares.
Prepare the journal entries for Sept. 1, 10, and 28.

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Review the information in Exercise #1 and assume retained earnings have a deficit of ($1,960,000). Prepare the shareholders’ equity section of the Kool.com balance sheet at the end of the first year, August 31, 2009.

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Review the information in Exercise #2 and calculate the book value per share for both preferred and common shares assuming
   a. the preferred shares have a liquidation value of $55 per share, are non-cumulative, and no dividends were paid during the year
   b. the preferred shares have a liquidation value of $55 per share, are cumulative, and no dividends were paid during the year
4. Crestco Corporation has 2,000 $4 cumulative preferred shares outstanding. There were no dividends in arrears at the end of 2005, and no dividends were paid in 2006 or 2007. Crestco also has 10,000 common shares outstanding.

a. If Crestco pays a total of $60,000 in dividends in 2008, how much will each class of shareholders receive?

b. If Crestco pays a total of $20,000 in dividends in 2008, how much will each class of shareholders receive?
5. The balance sheet of Aero Corporation reports total shareholders’ equity of $719,500, consisting of the following:
   a. Preferred shares liquidation value $22,000; 400 shares issued and outstanding.
   b. Common shareholders’ equity, 15,500 shares issued and outstanding.
   c. Aero has paid preferred dividends for the current year and there are no dividends in arrears.

   Compute the book value per share of the preferred shares and the common shares.

6. Alister Corporation reported pre-tax income of $484,000 on their income statement and $376,000 taxable income on their tax return. Assuming a corporate tax rate of 45%, present the journal entry to record Alister’s taxes for the year.

<table>
<thead>
<tr>
<th>Date</th>
<th>Accounts and Explanation</th>
<th>PR</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VI. Beyond the Numbers

Using the information in Daily Exercises #5 and #6, state the effect (increase, decrease, no effect), as of December 31, on the return on assets, return on shareholders’ equity, and book value in each situation. Assume preferred’s liquidation value is its book value.
VII. Demonstration Problems

Demonstration Problem #1

On March 1, 2008, Acura.net was incorporated and was authorized to issue 100,000 $1.50 preferred shares and 1,000,000 common shares. During March, the company completed the following selected transactions related to its shareholders’ equity:

Mar. 10 Sold 50,000 common shares at $15 per share.
Mar. 11 Issued 6,000 preferred shares for cash at $25 per share.
Mar. 17 Issued 20,000 common shares in exchange for equipment valued at $420,000.
Mar. 24 An old building and small parcel of land were acquired by the corporation for a future office site that would employ 60 people. The site value was $125,000; the building was worthless. Acura.net issued 5,000 common shares for the land.
Mar. 27 Sold 2,000 preferred shares at $31 a share.
Mar. 31 Earned a small profit for March and closed the $3,800 credit balance of Income Summary to the Retained Earnings account.

Required

1. Record the transactions in the general journal.
2. Post the journal entries into the equity accounts provided.
4. Compute the book value per share of the preferred shares and the common shares. The preferred shares have a liquidation value of $30 per share. No dividends are in arrears.

Requirement 1 (journal entries)

<table>
<thead>
<tr>
<th>Date</th>
<th>Accounts and Explanation</th>
<th>PR</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirement 2 (postings)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement 3 (Shareholders’ equity section)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acura.net</td>
</tr>
<tr>
<td>Balance Sheet - Shareholders’ Equity Section</td>
</tr>
<tr>
<td>March 31, 2008</td>
</tr>
</tbody>
</table>
Requirement 4 (book value per share)
Demonstration Problem #2

Caterra Corporation has the following capital structure: 10,000 $1.00 preferred shares authorized and outstanding, and 100,000 authorized common shares, 40,000 shares issued. During years 2004 through 2009, the corporation declared the following dividends:

<table>
<thead>
<tr>
<th>Year</th>
<th>Dividend Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>$0</td>
</tr>
<tr>
<td>2005</td>
<td>2,000</td>
</tr>
<tr>
<td>2006</td>
<td>40,000</td>
</tr>
<tr>
<td>2007</td>
<td>120,000</td>
</tr>
<tr>
<td>2008</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>20,000</td>
</tr>
</tbody>
</table>

A. Assume the preferred shares are non-cumulative, calculate the amount of dividends per share for each class of shares for each year.

<table>
<thead>
<tr>
<th>Year</th>
<th>Dividend Amount</th>
<th>Preferred</th>
<th>Common</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. Assume the preferred shares are cumulative, calculate the amount of dividends per share each year for each class of shares.

<table>
<thead>
<tr>
<th>Year</th>
<th>Dividend Amount</th>
<th>Preferred</th>
<th>Common</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SOLUTIONS

I. Matching


II. Multiple Choice

1. C Each common share usually gives the shareholder one vote in the election of the board of directors.
2. D Recall that mutual agency is a characteristic of partnerships not present in corporations. Transferability of ownership is a characteristic that the corporate form of organization simplifies as compared with partnerships. Limited agency has no meaning.
3. B Stated value, like par value, is an arbitrary value assigned to a share.
4. A Contributed surplus is the account credited when a corporation receives more than the original recorded value when selling repurchased shares.
5. A Dividends represent the distribution of the earnings of the corporation and are not guaranteed.
6. D The declaration of a dividend reduces Retained Earnings and increases the liability account, Dividends Payable.
7. C The payment of a cash dividend results in cash being paid to shareholders to settle the liability created by the declaration of the dividend.
8. A When share capital is issued in exchange for non-cash assets, the transaction should be recorded at fair market value.
9. B The declaration of a dividend by the board of directors creates a current liability.
10. D Dividends in arrears are not a liability since a dividend must be declared to create a liability. However, dividends in arrears do impair the amount of capital available to common shareholders. Dividends in arrears are usually disclosed by a footnote.

III. Completion

1. common (Corporations may also issue preferred shares, but that is optional.)
2. bylaws
3. receiving dividends and in event of a liquidation
4. the board of directors
5. Income Tax Payable
6. common shareholders’ equity
7. record
8. declaration
9. market
10. articles of incorporation
IV. Daily Exercises

1. Contributed capital
   Preferred shares
   Common shares
   Contributed surplus—share repurchases
   Total contributed capital
   Retained earnings
   Total shareholders’ equity

**Study Tip**: Contributed Capital is always listed first in the above order, followed by Retained Earnings.

2. a. Cash 1,200,000
   Common Shares 1,200,000

3. a. Land 310,000
   Building 620,000
   Common Shares 930,000

4. May 10 Retained Earnings 40,000
   Dividends Payable 40,000

   May 30 No entry

   June 30 Dividends Payable 40,000
   Cash 40,000

**Study Tip**: Remember no entry is required on the record date. This simply determines who will receive the dividends when paid.

5. Preferred: $2.50 per share × 8,000 shares = $20,000.
   Common: $40,000 - $20,000 = $20,000, or $1.00 per share.

Since the preferred shares are non-cumulative, the preferred shareholders are only entitled to the current year’s dividend ($20,000). The balance is distributed to the common shares.

6. Preferred: $20,000 per year (see above) × 2 years = $40,000.
   Since the board of directors only declared $40,000 for dividends, preferred shareholders receive the entire amount ($2.50 per share per year) and the common shareholders receive nothing!
V. Exercises

1. 

<table>
<thead>
<tr>
<th>Date</th>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 1</td>
<td>Cash</td>
<td>1,600,000</td>
</tr>
<tr>
<td></td>
<td>Common Shares</td>
<td>1,600,000</td>
</tr>
<tr>
<td>Sept. 10</td>
<td>Cash</td>
<td>800,000</td>
</tr>
<tr>
<td></td>
<td>Preferred Shares</td>
<td>800,000</td>
</tr>
<tr>
<td>Sept. 28</td>
<td>Inventory</td>
<td>40,000</td>
</tr>
<tr>
<td></td>
<td>Equipment</td>
<td>90,000</td>
</tr>
<tr>
<td></td>
<td>Common Shares</td>
<td>130,000</td>
</tr>
</tbody>
</table>

2. 

Kool.com
Shareholders’ Equity
August 31, 2009

Contributed capital:
- Preferred shares, $2, 100,000 shares authorized, 10,000 shares issued: $800,000
- Common shares, 900,000 shares authorized, 84,000 shares issued: $1,730,000

Total contributed capital: $2,530,000

Retained earnings: $(1,960,000)

Total shareholders’ equity: $570,000

3. 

a. Preferred book value = \[
\frac{\text{Total preferred equity}}{\text{Number of preferred shares outstanding}}
\]

= \[
\frac{\$55 \text{ liquidation value} \times 10,000 \text{ shares}}{10,000 \text{ shares}}
\]

= \[
\$55 \text{ per share}
\]

Common book value = \[
\frac{\text{Total shareholders’ equity} - \text{preferred equity}}{\text{Number of common shares outstanding}}
\]

= \[
\frac{\$570,000 \text{ – } \$550,000}{84,000}
\]

= \[
\frac{\$20,000}{84,000}
\]

= \[
\$0.24 \text{ per share (rounded)}
\]
b. Preferred book value = \frac{\text{Total preferred equity + dividends in arrears}}{\text{Number of preferred shares outstanding}}
\begin{align*}
&= \frac{$55 \text{ liquidation value + $2 dividend in arrears} \times 10,000 \text{ shares}}{10,000 \text{ shares}} \\
&= $57 \text{ per share}
\end{align*}

Common book value = \frac{\text{Total shareholders’ equity – preferred equity}}{\text{Number of common shares outstanding}}
\begin{align*}
&= \frac{$570,000 - $570,000}{84,000} \\
&= 0 \\
&= \$0.00 \text{ per share}
\end{align*}

4. a. Preferred: 3 years \times 2,000 \text{ shares} \times \$4.00 = $24,000 \\
Common: $60,000 - $24,000 = $36,000

b. Preferred: 3 years \times 2,000 \text{ shares} \times \$4.00 = $24,000 \\
Since $20,000 is less than the $24,000 preferred shareholders must receive before common shareholders receive anything, all $20,000 goes to the preferred shareholders.

5. Preferred book value = \frac{\text{Total preferred equity + Dividends in arrears}}{\text{Number of preferred shares outstanding}}
\begin{align*}
\text{Preferred book value} &= \frac{$22,000 + $0}{400} \quad = \quad $55 \\
\text{Common book value} &= \frac{\text{Total equity} - (\text{Total preferred equity} + \text{Dividends arrears})}{\text{Number of common shares outstanding}}
\end{align*}
\begin{align*}
\text{Common book value} &= \frac{$719,500 - ($22,000 + $0)}{15,500} \quad = \quad $45.00
\end{align*}

6. 
\begin{align*}
\text{Income Tax Expense} &= 217,800 \\
\text{Income Tax Payable} &= 169,200 \\
\text{Future Tax Liability} &= 48,600
\end{align*}
Income Tax Expense = $484,000 × 45% = $217,800
Income Tax Payable = $376,000 × 45% = $169,200
Future Tax Liability = $217,800 - $169,200 = $48,600

VI. Beyond the Numbers

Here’s the solution—see below for the explanation. This is more difficult than you might have thought.

<table>
<thead>
<tr>
<th>Situation</th>
<th>Return on Assets</th>
<th>Return on Shareholders’ Equity</th>
<th>Common Book Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. preferred shares are non-cumulative</td>
<td>increase</td>
<td>decrease</td>
<td>decrease</td>
</tr>
<tr>
<td>b. preferred shares are cumulative</td>
<td>increase</td>
<td>decrease</td>
<td>decrease</td>
</tr>
</tbody>
</table>

The formulas are:

Rate of return on total assets \[= \frac{\text{Net income + Interest expense}}{\text{Average total assets}}\]

Rate of return on common shareholders’ equity \[= \frac{\text{Net income - Preferred dividends}}{\text{Average common shareholders’ equity}}\]

Common book value \[= \frac{\text{Total equity - (Total preferred equity + Dividends arrears)}}{\text{Number of common shares outstanding}}\]

For the return on assets, neither net income nor interest expense change because dividends of $40,000 were paid (regardless of who got how much.) However, average total assets will decrease because of the $40,000 reduction in cash. Therefore, return on assets will increase in both situations.

For return on shareholders’ equity, the numerator (net income less preferred dividends) is smaller because of the dividend payment. The denominator (average shareholders’ equity) is also decreasing because the total dividends are debited to Retained Earnings. In Exercise #5, the numerator is decreasing by $20,000 while the denominator is decreasing by $40,000. In Exercise #6, both the numerator and denominator are decreasing by $40,000.

For common book value, the numerator in both exercises is decreasing while the denominator remains constant.

VII. Demonstration Problems

Demonstration Problem #1 Solved and Explained

Requirement 1

Mar. 10 Cash \[750,000\]

Common Shares (50,000 × $15) \[750,000\]

Sold common shares at $15 per share.
The payment of cash is recorded by debiting Cash and crediting Common Shares for the number of shares times the selling price of the shares \((50,000 \times 15)\).

Mar. 11 Cash \((6,000 \times 25)\) 150,000

Preferred Shares \((6,000 \times 25)\) 150,000

Issued preferred shares.

Preferred Shares is credited for the shares times selling price \((6,000 \times 25)\).

Mar. 17 Equipment 420,000

Common Shares \((20,000 \times 21)\) 420,000

To issue common shares in exchange for equipment

When a corporation issues shares in exchange for an asset other than cash, it debits the asset received (in this case, equipment) for its fair market value and credits the capital accounts as it would do if cash were the asset received.

Mar. 24 Land 125,000

Common shares \((5,000 \times 25)\) 125,000

Issued shares in exchange for land

The entire $125,000 is debited to the Land account because the building has no value.

Mar. 27 Cash 62,000

Preferred Shares \((2,000 \times 31)\) 62,000

To record the sale of preferred shares

Mar. 31 Income Summary 3,800

Retained Earnings 3,800

To close Income Summary by transferring net income into Retained Earnings.

At the end of each month or year, the balance of the Income Summary account is transferred to Retained Earnings. Acura.net earned a small profit in March. The closing entry will debit Income Summary (to reduce it to zero) and credit Retained Earnings (increasing shareholders’ equity to reflect profitable operations).

### Requirement 2

<table>
<thead>
<tr>
<th>Preferred Shares</th>
<th>Common Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar. 11</td>
<td>150,000</td>
</tr>
<tr>
<td>Mar. 27</td>
<td>62,000</td>
</tr>
<tr>
<td>Bal.</td>
<td>212,000</td>
</tr>
<tr>
<td>Mar. 10</td>
<td>750,000</td>
</tr>
<tr>
<td>Mar. 17</td>
<td>240,000</td>
</tr>
<tr>
<td>Mar. 24</td>
<td>125,000</td>
</tr>
<tr>
<td>Bal.</td>
<td>1,115,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Retained Earnings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar. 31</td>
<td>3,800</td>
</tr>
<tr>
<td>Bal.</td>
<td>3,800</td>
</tr>
</tbody>
</table>
Requirements 3

Acura.net
Balance Sheet - Shareholders’ Equity Section
March 31, 2008

Contributed capital:
  Preferred shares, $1.50, 100,000 shares authorized, 8,000 issued $ 212,000
  Common shares, 1,000,000 shares authorized, 75,000 issued 1,115,000
  Total contributed capital $1,327,000

Retained earnings 3,800

Total shareholders’ equity $1,330,800

Requirement 4

Preferred:
  Liquidation value (8,000 shares × $30) $ 240,000
  Dividends in arrears 0
  Shareholders’ equity allocated to preferred 240,000
  Book value per share ($240,000 ÷ 8,000 shares) $ 30.00

Common:
  Total shareholders’ equity $1,330,800
  Less: Shareholders’ equity allocated to preferred 240,000
  Shareholders’ equity allocated to common $1,090,800
  Book value per share ($1,270,800 ÷ 75,000 shares) $14.53

Calculated as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>No. of Shares</th>
<th>Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar. 10</td>
<td>50,000</td>
<td>Issued</td>
</tr>
<tr>
<td>Mar. 17</td>
<td>20,000</td>
<td>Issued</td>
</tr>
<tr>
<td>Mar. 24</td>
<td>5,000</td>
<td>Issued</td>
</tr>
<tr>
<td></td>
<td>75,000</td>
<td>Shares</td>
</tr>
</tbody>
</table>
Demonstration Problem #2 Solved and Explained

A. Preferred shares are non-cumulative.

<table>
<thead>
<tr>
<th>Year</th>
<th>Dividend Amount</th>
<th>Preferred</th>
<th>Common</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>2005</td>
<td>$2,000</td>
<td>$0.20 per share</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>($2,000 ÷ 10,000 shares)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>$40,000</td>
<td>$1.00 per share</td>
<td>$.75 per share</td>
</tr>
<tr>
<td></td>
<td>10,000 shares × $1.00</td>
<td>$30,000 ÷ 40,000</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>$120,000</td>
<td>$1.00 per share</td>
<td>$2.75</td>
</tr>
<tr>
<td></td>
<td>10,000 shares × $1.00</td>
<td>$110,000 ÷ 40,000</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>2009</td>
<td>$20,000</td>
<td>$1.00</td>
<td>$.25 per share</td>
</tr>
<tr>
<td></td>
<td>10,000 shares × $1.00</td>
<td>$10,000 ÷ 40,000</td>
<td></td>
</tr>
</tbody>
</table>

The preferred shares are non-cumulative so the shareholders are only entitled to the current year’s dividend, which is $1 per share for a total of $10,000. Any (and all) excess goes to the common shareholders.

B. The preferred shares are cumulative.

<table>
<thead>
<tr>
<th>Year</th>
<th>Dividend Amount</th>
<th>Preferred</th>
<th>Common</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>There is now $10,000 of preferred dividends in arrears.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>$2,000</td>
<td>$0.20 per share</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>($2,000 ÷ 10,000 shares)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>There is now $18,000 of preferred dividends in arrears.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>$40,000</td>
<td>$2.80 per share</td>
<td>$.30 per share</td>
</tr>
<tr>
<td></td>
<td>First, the preferred shares get their arrearage, which is $.80 each from 2004 and $1.00 from 2005 for a total of $1.80. Then they get their $1 for 2006, for a total of $2.80. The balance $12,000 ($40,000 - $28,000) goes to common.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>$120,000</td>
<td>$1.00 per share</td>
<td>$2.75</td>
</tr>
<tr>
<td></td>
<td>Preferred has no arrearage so they receive $1.00 per share with the remainder going to common.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2008  $0  $0  $0  $0
There is now $10,000 of preferred dividends in arrears.

2009  $20,000  $2.00 per share  $0  $0
Preferred gets the entire $20,000; $10,000 for 2002 and $10,000 for 2003. Common shareholders receive nothing.

**Study Tip:** Most preferred shares are cumulative. The term has no meaning when applied to common shares.