E15-1. Understanding Shareholders’ Equity

**Requirement 1:**
Preferred stock is a class of “capital stock” that pays dividends at a specified rate and that has preference over common stock in the payment of dividends and the liquidation of assets. Preferred stock does not ordinarily carry voting rights. Common stock, by contrast, conveys voting rights but does not pay dividends at a specified rate. Instead, common stock dividends (if any) are declared (“set”) quarterly by the company’s directors.

**Requirement 2:**
Treasury stock is stock (usually common shares) reacquired by the issuing company and available for retirement or resale. Treasury stock is shares issued but not outstanding. The shares cannot be voted and they neither pay nor accrue dividends.

**Requirement 3:**
Redeemable preferred stock is a less permanent form of ownership capital than is traditional (non-redeemable) preferred stock. The SEC was concerned that presenting redeemable preferred as part of shareholders’ equity may cause financial statement readers to overlook the cash flow consequences of redemption. Presenting redeemable preferred stock in the liability section of the balance sheet serves to alert readers to the possibility of redemption and its cash flow consequences.

**Requirement 4:**
The employer’s cost of stock-based compensation—employee stock options and restricted stock awards—is measured as the fair value of the award as of the grant date.

**Requirement 5:**
The employer’s cost of stock-based compensation is expensed (usually on a straight-line basis) over the vesting period (for stock options) or restriction period (for restricted stock) that applies to the award.
E15-5. Analyzing various stock transactions  
(AICPA adapted)

The capital transactions are described in the following schedule:

<table>
<thead>
<tr>
<th>Date</th>
<th>Transaction Description</th>
<th>Cash</th>
<th>Common Stock Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/5/11</td>
<td>Issued 100,000 shares at $5 each</td>
<td>$500,000</td>
<td>$500,000</td>
</tr>
<tr>
<td>4/6/11</td>
<td>Issued 50,000 shares at $7 each</td>
<td>350,000</td>
<td>250,000  $100,000</td>
</tr>
<tr>
<td>6/8/11</td>
<td>Issued 15,000 shares at $10 each</td>
<td>150,000</td>
<td>75,000   75,000</td>
</tr>
<tr>
<td>7/28/11</td>
<td>Purchased 25,000 shares at $4 each</td>
<td>(100,000)</td>
<td>($100,000)</td>
</tr>
<tr>
<td>12/31/11</td>
<td>Sold 25,000 treasury shares at $8 each</td>
<td>200,000</td>
<td>100,000  100,000</td>
</tr>
</tbody>
</table>

Balance at 12/31/2011 $1,100,000 $825,000 $275,000 $0

E15-9. Stock dividends and retained earnings  
(AICPA adapted)

The entry to record the stock dividend (900 shares x $8 = $7,200) is:

DR Dividend $7,200  
CR Common stock, par $4,500  
CR Additional paid-in capital 2,700

The retained earnings balance on March 31, 2012, is:

Balance on 12/31/11 $73,000  
Loss for quarter (16,000)  
Stock dividend (7,200)  
Balance on 3/31/12 $49,800
E15-12. Determining stockholders’ equity after a stock split
(AICPA adapted)

The stockholders’ equity accounts on June 30, 2011, after
the split would show:

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common stock, par value $10; 200,000 shares authorized;</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>100,000 shares outstanding</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Additional paid-in capital</td>
<td>150,000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>1,350,000</td>
</tr>
</tbody>
</table>

E15-16. Employee stock options
(AICPA adapted)

Under the fair value method now required by GAAP, Amos
would record on the options grant date an expense equal to
the value of the options granted. According to the
information provided, each option was worth $17 on the
grant date and options to buy 20,000 shares were granted.
So, Austin would record $340,000 as stock option
(compensation) expense.

No compensation expense is recorded in 2012 when the
options are exercised.

P15-1. Identifying incentives for stock repurchases

Requirement 1:
The answer to this question depends on when, during the
year, shares are repurchased. The most straightforward
calculation assumes shares are repurchased at the
beginning of each year:

Target 2012 EPS = $5.25 = $10 million/shares
There must be 1,904,762 shares outstanding, so 95,238 shares must be repurchased at the beginning of 2012.

Target 2013 EPS = $5.50 = $10 million/shares

There must be 1,818,182 shares outstanding, so 86,580 shares must be repurchased at the beginning of 2013.

Both share estimates presume that the cash used to buy back shares will not itself affect income, otherwise additional shares will need to be repurchased to offset the earnings decline from interest expense, for example, if the cash is borrowed.

**Requirement 2:**
If the buybacks occur mid-year, Keystone would need to double the number of repurchased shares. The reason is that each share would receive a 50% weight in the EPS calculation.

**Requirement 3:**
There are several reasons Keystone’s management may want to maintain the company’s record of earnings growth (Student answers will vary):

  Management compensation and loan agreements may be tied to specific earnings targets or growth levels;

  Maintain credibility with analysts and investors by delivering earnings consistent with management forecasts.
P15-4. Determining the effects of splits, dividends, and retained earnings

Requirement 1:
Both options allow the company to avoid violating the limit on cash dividend payments. With regard to option A, a stock split of 12 for 10 means investors exchange 10 shares of common stock for 12 shares of “new” common stock. This option has no effect on the balance in the retained earnings account. All that would occur is that the par value of the stock would be reduced from $6 to $5 (i.e., 10/12 x $6), and additional shares would be issued to stockholders. Option B also allows the company to avoid violating the limit on cash dividend payments. By increasing the size of the stock dividend from 20% to 30%, the company can use the par-value method rather than the market-value method of recording the dividend. Retained earnings would be reduced by the par-value of stock issued, or $1,980,000 (30% x 1,100,000 shares x $6 per share) but this will not violate the dividend constraint.

Requirement 2:
Stockholders prefer cash dividends and stock price appreciation to just more pieces of paper. All three of these options—20% stock dividend, a 12-for-10 stock split, and a 30% stock dividend—increase the number of shares held but don’t add real value to the investment portfolio. The stock split, at least, doesn’t reduce retained earnings, so it leaves open the possibility of higher cash dividend payments in the future. Otherwise, it is not clear that stockholders will have a strong preference for any of these options.
P15-10. Calculating earnings per share

**Requirement 1:**
The preferred stock pays a 10% dividend ($500,000), so there must be $5 million of preferred stock outstanding. Since each share has a $100 par value, there must have been 50,000 shares issued (50,000 shares x $100 per share = $5 million). The preferred stock converts into 200,000 shares of common stock, so each $100 par value preferred share must convert into 4 shares of common.

<table>
<thead>
<tr>
<th>Numerator (adjusted earnings)</th>
<th>Basic</th>
<th>Diluted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income</td>
<td>$6,300,000</td>
<td>$6,300,000</td>
</tr>
<tr>
<td>Preferred stock dividend</td>
<td>-225,000</td>
<td>-225,000</td>
</tr>
<tr>
<td>Interest on convertible note (Note 3)</td>
<td></td>
<td>20,000</td>
</tr>
<tr>
<td>Adjusted earnings</td>
<td>$6,075,000</td>
<td>$6,095,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Denominator (weighted-average shares):</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Common outstanding on January 1</td>
<td>1,800,000</td>
<td>1,800,000</td>
</tr>
<tr>
<td>Common issued February 28th (Note 1)</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Common issued as stock dividend (Note 2)</td>
<td>46,500</td>
<td>46,500</td>
</tr>
<tr>
<td>Common repurchased (6,000 shares x -3,000)</td>
<td>-3,000</td>
<td>-3,000</td>
</tr>
<tr>
<td>Convertible note (Note 4)</td>
<td></td>
<td>13,333</td>
</tr>
<tr>
<td>Contingently issuable shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighted-average shares</td>
<td>1,893,500</td>
<td>1,906,833</td>
</tr>
</tbody>
</table>

Earnings per share

<table>
<thead>
<tr>
<th></th>
<th>Basic</th>
<th>Diluted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$3.21</td>
<td>$3.20</td>
</tr>
</tbody>
</table>

1. Common shares issued February 28: 60,000 shares X 10/12 months = 50,000 shares
2. Common shares issued May 15 as stock dividend: (1,800,000 + 60,000) shares outstanding X .04 stock dividend percent X 15/24 of year remaining = 46,500 shares
3. Interest on convertible note: $1,000,000 face X .10 interest rate X (1-.40 tax rate) X 4/12 of year = $20,000 interest after-tax.
4. Common shares issued upon conversion: 40 shares X 1,000 certificates x 4/12 of year.

Contingently issuable shares (not mentioned in the chapter) are considered to be outstanding in the computation of diluted
EPS once the target performance level ($5 million of earnings) has been met. The solution presumes that this occurs at the end of the fourth quarter, and thus the time-weighted average number of contingently issuable shares is $60,000 \times 0/12 = 0$ shares.

Contingently issuable shares are not included in the computation of basic EPS until issued.