Accountancy 422
Earnings Per Share
Supplemental Problem—Solution

Basic EPS:

Numerator:

Net income as reported ............................................................... $12,750,000
Less: Preferred dividends paid:
    June 30 (1,400,000 × $0.50).................................................... $700,000
    Sept. 30 (1,400,000 × $0.50)................................................... 700,000
    Dec. 31 (650,000 × $0.50)....................................................... 325,000
Numerator for Basic EPS.............................................................  $11,025,000

Denominator:

Shares outstanding at December 31, 2002................................. 8,800,000
Less: Shares issued on conversion of preferred stock
    (750,000 × 2) ............................................................... 1,500,000
Shares outstanding at Jan. 1, 2002........................................... 7,300,000

Computation of weighted-average number of shares:

    Beginning balance 7,300,000 * 12/12 7,300,000
    October conversion 300,000 * 3/12 75,000
    November conversion 1,200,000 * 2/12 200,000

Weighted-average number of shares ........................................... 7,575,000

Basic EPS ($11,025,000 ÷ 7,575,000)........................................... $1.46
Diluted Earnings Per Share:

Test for antidilution:

Convertible preferred stock
  Dividend (numerator effect, see above) $1,725,000
  Conversion shares
    4/2—1,400,000 * 2 * 9/12 = 2,100,000
    10/1—(150,000) * 2 * 3/12 = (75,000)
    11/1—(600,000) * 2 * 2/12 = (200,000)
  Total conversion shares (denominator effect) 1,825,000
  Test: $1,725,000 ÷ 1,825,000 = 0.95 < $1.46 ⇒ dilutive

Convertible debentures
  Interest (numerator effect, $20,000,000 * 9% * (1–30%) $1,260,000
  Total conversion shares (denominator effect, 20000 * 60) 1,200,000
  Test: $1,260,000 ÷ 1,200,000 = $1.05 < $1.46 ⇒ dilutive

Stock options:
  Number of shares if converted 500,000 shares
  Proceeds if converted (500,000 * 20) = $10,000,000
  Shares purchased with proceeds ($10,000,000 ÷ $25) 400,000 shares
  Shares added to denominator 100,000 shares

Load into model:

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<tr>
<th></th>
<th>Numerator</th>
<th>Denominator</th>
<th>EPS</th>
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<tbody>
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<td>Simple capital structure</td>
<td>$11,025,000</td>
<td>7,575,000</td>
<td>$1.46</td>
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<tr>
<td>Stock options</td>
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<td>Convertible debentures</td>
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<td>1,200,000</td>
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<tr>
<td>Diluted EPS</td>
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<td>10,700,000</td>
<td>$1.31</td>
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