On January 1, 2021, Tonge Industries had outstanding 440,000 common shares (par $1) that originally sold for $20 per share, and 4,000 shares of 10% cumulative preferred stock (par $100), convertible into 40,000 common shares.

On October 1, 2021, Tonge sold and issued an additional 16,000 shares of common stock at $33. At December 31, 2021, there were incentive stock options outstanding, issued in 2020, and exercisable after one year for 20,000 shares of common stock at an exercise price of $30. The market price of the common stock at year-end was $48. During the year, the price of the common shares averaged $40.

Net income was $650,000. The tax rate for the year was 25%.

Compute basic and diluted EPS for the year ended December 31, 2021.

Problem 19-17 (continued)

Numerator (Basic EPS): Net income = $650,000; Preferred dividends = $40,000 [(10% x $100) x 4,000]. Because the preferred stock is cumulative, dividends are included whether or not paid.

Denominator (Basic EPS): Weighted average # shares common stock outstanding

\[
\begin{align*}
1/1 – 12/31 & \quad 440,000 \times (12/12) \quad = \quad 440,000 \\
10/1 – 12/31 & \quad 16,000 \times (3/12) \quad = \quad 4,000 \\
\text{Weighted average # shares} & \quad 444,000
\end{align*}
\]

Basic EPS = \( \frac{($650,000 - $40,000)}{444,000} = $1.37 \)
Problem 19-17 (continued)

Exercisable Securities: Use the Treasury Stock Method if dilutive
1. Are they dilutive? Yes because the exercise price of $30 is less than the average market price of $40.
2. Assume exercise at the later of the date of issue (2020) or the beginning of the period (1/1/21). Assume exercise 1/1/21
3. Proceeds received on exercise = 20,000 x $30 = $600,000
4. # Shares repurchased = $600,000 ÷ $40 = 15,000
5. Net increase in # shares outstanding = 5,000 (20,000 – 15,000)
6. EPS with the inclusion of the options:
   \[ \frac{$650,000 - $40,000}{444,000 + 5,000} = $1.36 \] (this will be used to test for dilutive effect of convertible preferred stock).

Problem 19-17 (continued)

Convertible Preferred Stock: Use the If Converted Method
1. Assume conversion at later of date of issue (?) or beginning of year (1/1/21). Assume conversion on 1/1/21.
2. Dividends not paid = $40,000 [(10% x $100) x 4,000]
3. # additional shares on conversion = 40,000
4. Conversion ratio = $40,000 ÷ 40,000 = $1.00
5. Dilutive because $1.00 is less than $1.36.

**Basic EPS** = ($650,000 - $40,000) ÷ 444,000 = $1.37

**Diluted EPS** = ($650,000 - $40,000 + $40,000) ÷ (444,000 + 5,000 + 40,000) = $1.33