J.K. SHAH®
CLASSES
a Veranda Enterprise

Reading 30

ANALYZING INCOME STATEMENTS

1. **(A)** **1.6 million.**

Explanation

The weighted average number of common shares outstanding is the number of shares outstanding during the year weighted by the portion of the year they were outstanding. For the QRK Company, the weighted number of shares outstanding is the original one million shares plus 150,000 shares for the end-of-March issue (= 200,000 × 9/12), plus 250,000 shares for the end-of-June issue (= 500,000 × 6/12), plus 200,000 shares for the end-of-September issue (= 800,000 × 3/12), or 1.6 million shares.

(Module 30.4, LOS 30.d)

2. **(B)** **$ 2.64.**

Explanation

1/1/00 22,000 shares (adjusted for 10% stock dividend) × 12 months = 264,000

6/1/00 7,700 shares (adjusted for 10% stock dividend) × 7 months = 53,900

Total share months = 317,900

Average shares = 317,900 / 12 = 26,492

Basic EPS = ($150,000 − $80,000) / 26,492 = 2.64

(Module 30.4, LOS 30.d)

3. **(B)** **Antidilutive securities decrease EPS if they are exercised or converted.**

Explanation

Antidilutive securities increase EPS if exercised or converted to common stock.

(Module 30.4, LOS 30.d)

4. **(A)** **Test for impairment but do not amortize.**

Explanation

Under IFRS and U.S. GAAP, intangible assets with indefinite lives (e.g., goodwill) are not amortized but are tested for impairment at least annually.

(Module 30.2, LOS 30.b)

5. (C) $ 2.36.

Explanation

First calculate Basic EPS, as any anti-dilutive instruments should be excluded.

Basic EPS = (net income – preferred dividends)/weighted average common shares

Basic EPS = ($ 30,000 – $ 3,600)/5,000 = $ 5.28.

Diluted EPS = adjusted earnings after conversion (EAC) / weighted average plus potential common shares outstanding.

Step 1: Calculate Adjusted EAC

adjusted EAC	:	net income - preferred dividends
	+	Dividends on convertible preferred stock
	+	after-tax interest on convertible debt
	+	adjusted earnings available for common shares

preferred dividends = convertible preferred dividends = (0.08) (90) (500) = 3,600

convertible debt interest = (60,000) (0.06) (1 – 0.40) = 2,160

adjusted EAC = (30,000 – 3,600 + 3,600 + 2,160) **= $ 32,160**

Step 2: Calculate Weighted average plus potential common shares outstanding.

weighted average common shares			=	5,000
shares from conversion of convertible preferred stock	=	(500×4)	=	2,000
shares from conversion = $(60 \times 110) = 6,600$ of convertible bonds	=	(60×110)	=	6,600
weighted ave. plus potential common shares outst.			=	**13,600**

step 3: Confirm dilution or anti-dilution.

The impact of the convertible preferred stock is $ 3,600/2,000 = $1.8, this is less than BEPS and so dilutive.

The impact of the convertible bonds is $ 2,160/6,600 = $ 0.33, again less than BEPS and so also dilutive. Both should be included in the final calculation.

Step 4: Calculate Diluted EPS

Diluted EPS = 32,160 / 13,600 = **$ 2.36.**

(Module 30.4, LOS 30.d)

6. (B) $ 0.15.

Explanation

Caledonia's basic EPS

= (net income − preferred stock dividends) / (weighted average common shares outstanding)

= [$ 460,000 − ($1,000 × 1,000 × 0.08)] / 2,300,000 = $ 0.17.

Using the treasury stock method, if the warrants were exercised, cash inflow would be 10,000 × 100 × $1.50 = $1,500,000. The number of Caledonia shares that could be purchased with the inflow, using the average share price, is $1,500,000 / $ 2 = 750,000. The net increase in common shares outstanding would have been 1,000,000 − 750,000 = 250,000.

Diluted EPS = $ 380,000 / (2,300,000 + 250,000) = $ 0.15.

(Module 30.4, LOS 30.d)

7. (A) $ 4.00.

Explanation

EPS = earnings available to common shareholders divided by the weighted average number of common shares outstanding. With no preferred shareholders, all of net income is available to the common shareholders. The weighted average number of shares outstanding equals the original 2 million shares plus 4/12 of the additional 600,000 shares. The 4/12 weight is used because the new shares were only outstanding 4 months of the year.

Thus, EPS = $8.8 million / [2 million + (4/12) (600,000)] = 8.8/2.2 = $ 4.00.

(Module 30.4, LOS 30.d)

8. (B) added to earnings available to common shareholders after an adjustment for taxes.

Explanation

Formula = Diluted EPS = [(Net income − Preferred dividends) + Convertible preferred dividends + (Convertible debt interest) (1 − t)] / [(Weighted average shares) + (Shares from conversion of conv. pfd shares) + (Shares from conversion of conv. debt) + (Shares issuable from stock options)]

(Module 30.4, LOS 30.d)

9. (A) Supple Moves and Perfect Collection.

Explanation

A complex capital structure is one that has potentially dilutive elements. Here, Supple Moves and Perfect Collection both meet this criteria. (The warrants for Supple Moves will be dilutive if the average stock prices were over $ 50.00.)

(Module 30.4, LOS 30.d)

10. (A) 1,200,000.

Explanation

1,000,000 (12) = 12,000,000

100,000 (12)   = 1,200,000

400,000(3)   = 1,200,000

$$\text{Total} = \frac{14,400,000}{12} = 1,200,000$$

(Module 30.4, LOS 30.d)

11. (A) Simple.
Explanation
A complex capital structure contains potentially dilutive securities such as options, warrants, or convertible securities. There is no basic capital structure but there are basic earnings per share which does NOT consider the effects of any dilutive securities in the computation of EPS.
(Module 30.4, LOS 30.d)

12. (A) estimates and are applied prospectively.
Explanation
Changes in asset lives and salvage value are changes in accounting estimates and are not considered changes in accounting principle. Changes in accounting estimates are applied prospectively.
(Module 30.3, LOS 30.c)

13. (C) $ 5.32.
Explanation
Feder's basic earnings per share ((net income – preferred dividends) / weighted average shares outstanding) was (($ 7,650,000 – ($1 ,000 × 10,000 × 0.06))
/ 1,100,000=) $ 6.41.
If the convertible preferred stock was converted to common stock at January 1, (10,000 × 20 =) 200,000 additional common shares would have been issued, dividends on the preferred stock would not have been paid, and Diluted EPS would have been ($ 7,650,000 / (1,100,000 + 200,000) = $ 5.88. Because $ 5.88 is less than basic EPS of $ 6.41, the preferred shares are dilutive.
Using the treasury stock method, if the options were exercised cash inflow would be (70,000 × 10 × $ 50 =) $ 35,000,000. The number of Feder shares that can be purchased with the inflow (cash inflow divided by the average share price)   is
 ($ 35,000,000 / $ 62 =) 564,516.
The number of shares that would have been created is (700,000 – 564,516 =) 135,484. Diluted EPS was [($,650,000 – ($ 1,000 × 10,000 × 0.06)] / (1,100,000 + 135,484) =) $ 5.71. Because this is less than the EPS of $6.41, the options are dilutive. Combining the calculations, Diluted EPS was (($ 7,650,000) / (1,100,000 + 200,000 + 135,484) = $ 5.32.
(Module 30.4, LOS 30.d)

14. (A) $ 7.45 $5.66
Explanation
Basic EPS = net income − pref div / wt. ave. shares of common
[850,00 − (3 × 10,000)] / 110,000 = $7.45
Diluted EPS = [(net income − preferred dividends) + convertible preferred dividends + (convertible debt interest) (1 − t)] / [(weighted average shares) + (shares from conversion of conv. pfd shares) + (shares from conversion of conv. debt) + (shares issuable from stock options)]
[(850,000 − (3 × 10,000)) + 30,000 + (80,000) (1 − 0.3)] / [(110,000) + (20,000) + (30,000)] = $ 5.66.
(Module 30.4, LOS 30.d)

15. (C) 70,000.

Explanation

The stock split is applied from the beginning of the year. Because the preferred stock is not convertible, it has no impact on the number of common shares for calculating diluted EPS. Beginning shares (40,000 shares × 12 months) + split shares (40,000 shares × 12 months) − reacquired shares (20,000 shares × 6 months) = 840,000, and 840,000 / 12 months = 70,000 shares.

(Module 30.4, LOS 30.d)

16. (A) $ 4.75.

Explanation

EPS = earnings available to common shareholders divided by the weighted average number of common shares outstanding. Earnings available to common shareholders is net income minus preferred dividends, or $4,750,000 (= $ 5 million – 250,000) for AKB.

(Module 30.4, LOS 30.d)

17. (B) principles-based.

Explanation

The converged accounting standards concerning revenue recognition, issued in May 2014 by the IASB and FASB, are principles-based.

(Module 30.1, LOS 30.a)

18. (B) 220,000.

Explanation

The January 1 balance of common shares outstanding is adjusted retroactively for both stock dividends and stock splits. The weighted average shares outstanding for the year = 100,000 × 2 × 1.1 = 220,000.

(Module 30.4, LOS 30.d)

19. (C) premium bonds.

Explanation

Whether a bond is issued or valued at a premium or discount is not relevant to whether the bond is potentially dilutive to earnings per share. Bonds and preferred stock are only potentially dilutive if they are convertible to common shares. Stock options and warrants are potentially dilutive because they will increase common shares outstanding if they are exercised.

(Module 30.4, LOS 30.d)

20. (B) $ 5.45.

Explanation

Baltimore's basic earnings per share (EPS) (net income / weighted average shares outstanding) for 2004 was $ 4,200,000 / 750,000 = $ 5.60.

To calculate diluted EPS, we use the treasury stock method to account for the warrants:

- Number of common shares created if options are exercised = 10,000 × 10 = 100,000
- Cash inflow if warrants are exercised = $ 40 × 100,000 = $ 4,000,000
- Shares purchased with these funds = $ 4,000,000 / 50 = 80,000
- Net increase in shares outstanding = 100,000 − 80,000 = 20,000

Diluted EPS = $ 4,200,000 / (750,000 + 20,000) = $ 5.45.

(Module 30.4, LOS 30.d)

21. (A) 20,266,667.

Explanation

Outstanding all year	8,000,000 × 1.2 × 2 × 1.0	19,200,000
Outstanding for 0.75 years	750,000 × 1.2 × 2 × 0.75	1,350,000
Outstanding for 0.25 years	100,000 × 2 × 0.25	50,000
Retired for 2 months	-1,000,000 × 2 × (2/12)	
Weighted average number of shares for year:		20,266,667

(Module 30.4, LOS 30.d)

22. (B) convertible bonds.

Explanation

Simple capital structures do not include any potentially dilutive securities (a security that could decrease earnings per share if exercised). Convertible bonds are potentially dilutive**.**

(Module 30.4, LOS 30.d)

23. (C) 104,000.

Explanation

Only the stock options with an exercise price of $20 are dilutive. The additional shares of 4,000 (20,000 − [(20,000 × 20) / 25]) are added to the 100,000 common shares outstanding.

(Module 30.4, LOS 30.d)

24. (B) expenses are incurred.

Explanation

Accrual accounting is based on the matching principle, under which revenues are recognized in the same period that the expenses are incurred to generate those revenues.

(Module 30.2, LOS 30.b)

25. (A)   **$ 4.12**   **$ 3.06**

Explanation

Basic EPS = Net income – preferred dividends / Weighted average shares of common Preferred dividends:

- 6.25% convertible preferred stock:

  (0.0625) ($100) (2,315) = $14,469

- 8% convertible preferred stock:

  (0.08) ($100) (2,572) = $ 20,576

- Preferred dividends = $14,469 + $ 20,576 = $ 35,045.

Basic EPS = ($ 200,000 – $ 35,045) / 40,045 = 164,955/40,045 = $ 4.12

Diluted EPS:

First, check each of the potentially dilutive securities for dilution.

- 6.125% convertible bonds:

  (Convertible debt interest) (1 – tax rate) / Common shares if converted

  = (0.06125) ($1,000) (100) (1 – 0.4) / (33) (100)

  = $1.1136

  Because this is less than basic EPS, these convertible bonds are dilutive.

- 6.25% convertible preferred stock:

  Preferred dividend / Common shares if converted

  = (0.0625) ($100) / 3.3 = $1.8939

  Because this is less than basic EPS, this convertible preferred stock is dilutive.

- 8% convertible preferred stock:

  Preferred dividend / Common shares if converted

  = (0.08) ($100) / 5 = $1.60

  Because this is less than basic EPS, this convertible preferred stock is dilutive.

- Warrants:

  Because the exercise price $38 is less than average share price $ 52, the warrants are dilutive.

Next, determine the number of common shares that would be created by exercise of each dilutive security:

- 6.125% convertible bonds:

  (100 bonds) (33) = 3,300 common shares

- 6.25% convertible preferred stock:

  (2,315 preferred shares) (3.3) = 7,640 common shares

- ` 8% convertible preferred stock:

  (2,572 preferred shares) (5) = 12,860 common shares

- Warrants:

[($ 52 – $ 38) / $ 52] × 9,986 = 2,689 common shares

Diluted EPS = (Net income − preferred dividends + convertible preferred dividends + aftertax convertible debt interest) / Weighted average shares of common adjusted for exercise

[($ 200,000 − $ 35,045) + $ 35,045 + (0.06125) ($1,000) (100) (1 − 0.4)] / (40,045 + 3,300 + 7,640 + 12,860 + 2,689) = $ 203,675 / 66,534 shares = $ 3.06

(Module 30.4, LOS 30.d)

26. **(B) antidilutive securities.**

    Explanation

    Antidilutive securities, upon exercise, increase basic EPS or decrease per share losses. Shares from conversion are not included in the calculation of basic or diluted EPS.

    (Module 30.4, LOS 30.d)

27. **(B) The numerator and denominator.**

    Explanation

    The numerator will increase because earnings available to the common shareholder are increased by the reduction in preferred dividends. The denominator increases because the weighted average number of shares increases upon conversion of the preferred stock.

    (Module 30.4, LOS 30.d)

28. **(B) $ 0.50.**

    Explanation

    The preferred shares are convertible into 100,000 × 20 = 2 million common shares. They are dilutive since:

    $$\text{Basic EPS} = \frac{\$1,000,000}{1,000,000} = \$1.00$$

    $$\text{Diluted EPS} = \frac{\$1,500,000}{3,000,000} = \$0.50 \text{ which is less.}$$

    (Module 30.4, LOS 30.d)

29. **(C) $ 5.80.**

    Explanation

    If bonds are converted, then net income will increase by 480,000 [10 million × 0.08 × (1 − 0.4)] and shares outstanding will increase by 200,000.

    numerator = 3,000,000 + 480,000 = 3,480,000

    denominator = 350,000 + (150,000 × 4/12) + 200,000 = 600,000

    diluted EPS = 3,480,000 / 600,000 = 5.80

    (Module 30.4, LOS 30.d)

30. (A) All of Valuable's potentially dilutive securities are antidilutive.

Explanation

If all of Valuable's potentially dilutive securities were antidilutive, then EPS would equal diluted EPS.

(Module 30.4, LOS 30.d)

31. (C) 5,000.

Explanation

1/1 5,500 shares issued (includes 10% stock dividend on 6/1) × 12 = 66,000

7/1 1,000 shares repurchased × 6 months = 6,000

66,000 − 6,000 = 60,000 shares

60,000 shares / 12 months = 5,000 average shares

(Module 30.4, LOS 30.d)

32. (A) 37,000.

Explanation

The end-of-period weighted average number of common shares outstanding is the number of shares outstanding during the year weighted by the portion of the year they were outstanding. Dividends and splits are applied to all shares issued or repurchased and all original or adjusted shares outstanding prior to the split or dividend.

Step 1) Apply the 04/01/06 dividend to the beginning of year shares:

Adjusted shares = 1.05 × 20,000 = 21,000

Step 2) Apply the 10/01/06 split to the adjusted beginning-of-year shares and the repurchase.

Adjusted beginning-of-year shares = 42,000 (= 2 × 21,000)

Adjusted repurchase = 10,000 (= 2 × 5,000)

Step 3) Compute the weighted average number of shares.

42,000(12/12) - 10,000(6/12) = 37,000 shares

(Module 30.4, LOS 30.d)

33. (B) $1.00 $ 0.80

Explanation

$$\text{Basic EPS} = \frac{(\$1,500,000 - \$500,000)}{1,000,000} = \$1.00$$

$$\text{Diluted EPS} = \frac{(\$1,500,000 - \$500,000) + \$1,000,000(1 - 0.4)}{1,000,000 + 1,000,000} = \frac{\$1,600,000}{2,000,000}$$

$$= \$0.80$$

(Module 30.4, LOS 30.d)

34. (B) $1.50.

Explanation

Basic EPS = ($120,000 − $ 40,000 − $ 5,000) / 20,000 = $ 3.75.

Convertible preferred stock A: $ 40,000 / 2(10,000) = $ 2.00, which is less than basic EPS so the convertible preferred stock is dilutive.

Convertible preferred stock B: $ 5,000 / 4($10,000) = $ 0.125, which is less than basic EPS so the convertible preferred stock is dilutive.

Diluted EPS = $120,000 / [20,000 + 2(10,000) + 4(10,000)] = $1.50.

(Module 30.4, LOS 30.d)

35. (B) $1.23.

Explanation

Diluted EPS = [NI − preferred dividends + convertible interest (1 − t)] / [weighted average shares + convertible debt shares]

100(1,000) (6%) (1 − 0.4) = $3,600; convertible debt shares = 50(100) = 5,000

$$\frac{\$15,000 - \$10,000 + \$3,600}{2,000 + 5,000} = \$1.23$$

(Module 30.4, LOS 30.d)

36. (C) 57,750.

Explanation

The weighted average number of common shares outstanding is the number of shares outstanding during the year weighted by the portion of the year they were outstanding. Dividends and splits are applied to all shares issued or repurchased and all original or adjusted shares outstanding prior to the split or dividend.

Step 1) Apply the 04/01/04 dividend to the beginning-of-year shares: Adjusted shares = 1.05 × 50,000 = 52,500

Step 2) Apply the 10/01/04 dividend the adjusted beginning-of-year shares. Adjusted beginning of year shares = 57,750 (= 1.1 × 52,500).

Step 3) Compute the weighted average number of shares. 57,750 × (12/12) = 57,750 shares.

(Module 30.4, LOS 30.d)

37. (C) Straight Line.

Explanation

Using straight-line depreciation, the amount to be depreciated over the asset's life is $ 90 − $ 10 million = $ 80 million, and depreciation expense in each year is $80 million / 8 = $10 million.

If the firm had used double-declining balance, depreciation expense in the first year would have been 2/8 × $ 90 million = $ 22.5 million. Based on units of production, depreciation expense in the first year would have been (30 million / 150 million) × $ 80 million = $16 million.

(Module 30.2, LOS 30.b)

38. (A) $ 3.38.

Explanation

Jersey, Inc.'s basic EPS = (net income – preferred dividends) / (weighted average number of common shares outstanding) was ($ 720,000 - $ 180,000)/160,000

= $ 3.38.

(Module 30.4, LOS 30.d)

39. (B) 132,000   139,000

Explanation

Calculating Basic Shares:

Jan 1 100,000 shares outstanding

May 1 30,000 shares issued

July 1 10% stock dividend issued

The 10% stock dividend is retroactive therefore:

110,000 shares × 12 months = 1,320,000

<u>33,000 shares × 8 months = 264,000</u>

Total share-month = 1,584,000

Average shares = (1,584,000 / 12) = 132,000

Calculating diluted shares:

(1,000 bonds) × (21 shares each) × (4 months) = 84,000 total share-month

84,000 / 12 = 7,000 Average shares

Total diluted shares = 7,000 (from convertible bonds) + 132,000 (from stock) = 139,000

(Module 30.4, LOS 30.d)

40. (B) $ 2.04.

Explanation

Lawson's basic EPS ((net income − preferred dividends) / weighted average common shares outstanding) is ($1,060,000 − (2,000 × $1,000 × 0.08)) / 420,000 = $ 2.14. To calculate diluted EPS the convertible preferred shares are presumed to have been converted, the preferred dividends paid are added back to the numerator of the EPS equation, and the additional common shares are added to the denominator of the equation. Lawson's diluted EPS is $1,060,000 / (420,000 + 100,000) = $ 2.04.

(Module 30.4, LOS 30.d)

41. (B) 25,000,000.

Explanation

The weighted average number of common shares outstanding is the number of shares outstanding during the year weighted by the portion of the year they were outstanding. Since no new common shares were issued in 2005, and there were 25 million shares at the end of 2004, there are 25 million shares at the end of 2005. Note that the preferred stock shares do not affect the common shares outstanding.

(Module 30.4, LOS 30.d)

42. (B) $ 5.00 / share.

Explanation

(210,000 − 110,000) / 20,000 = $ 5 share

(Module 30.4, LOS 30.d)

43. (B) $ 2.40.

Explanation

Preferred dividends = 6% × $100 × 20,000 = $120,000.

Basic EPS = ($1.2 million – $120,000) / [500,000 – (0.5)100,000] = $ 2.40.

The preferred dividend per common share that results from conversion = $120,000 / (2 × 20,000) = $ 3.00, which is greater than $ 2.40. The preferred is antidilutive (conversion would not reduce EPS). Therefore, reported diluted EPS will be the same as basic EPS: $ 2.40.

(Module 30.4, LOS 30.d)

44. (A) 735,000.

Explanation

The January 1 balance is adjusted retroactively for the stock dividend and (540,000 × 1.5) = 810,000 shares are treated as outstanding from January 1. The weighted average number of shares is computed by multiplying the shares by the number of months held, as follows:

January 1	Initial shares	(810,000 × 12)	=	9,720,000
July 1	Reacquired shares	(-180,000 × 6)	=	1,080,000
October 1	Reissued shares	(60,000 × 3)	=	180,000
				8,820,000
Weighted average shares was (8,820,000 / 12) = 735,000 shares				

(Module 30.4, LOS 30.d)

45. (B) 321.

Explanation

Proceeds from the exercise of the options would be: (802) ($ 6) = $ 4,812

The number of shares that could be repurchased with the proceeds at the average price is: 4,812 / 10 = 481.2

The additional number of shares the company would need to issue to fulfil the stock options is: 802 − 481 = 321

(Module 30.4, LOS 30.d)

46. (B) 1,325,000 shares.

Explanation

The 300,000 shares issued on April 1 were outstanding for 9 months, or 9 / 12 = 75% of the year. The 200,000 shares issued on July 1 were outstanding for 6 months, or 6 / 12 = 50% of the year. Weighted average shares = 1,000,000 + (0.75) 300,000 + (0.5) 200,000 = 1,325,000 shares

(Module 30.4, LOS 30.d)

47. (A) simple capital structure.
Explanation
A simple capital structure is one that contains no securities that have the potential to dilute a firm's earnings per share. For example, convertible bonds, convertible preferred stock, options, and warrants have the potential to dilute earnings per share upon conversion or exercise.
(Module 30.4, LOS 30.d)

48. (C) $1.74.
Explanation
Savannah Corp.'s basic EPS ((net income − preferred dividends) / weighted average number of common shares outstanding) was (($122,000 − $ 35,000) / $ 50,000 =) $1.74.
(Module 30.4, LOS 30.d)

49. (A) warrants, convertible securities, or options.
Explanation
A complex structure contains potentially dilutive securities. These include any securities that can potentially be converted into common shares, such as options, warrants, convertible preferred stock, or convertible bonds. Simple capital structures contain no potentially dilutive securities but may include non-convertible debt securities or nonconvertible preferred stock.
(Module 30.4, LOS 30.d)

50. (B) $1,800   4,500
Explanation
The interest expense for three months net of tax is added to the numerator (12% × $100,000 × 3/12 × 60 %) = $1,800. The number of shares added to the denominator are 4,500. (18,000 × 3 / 12).
(Module 30.4, LOS 30.d)

51. (B) preferred stock.
Explanation
Not all preferred stock is dilutive. Only convertible preferred stock is potentially dilutive.
(Module 30.4, LOS 30.d)

52. (B) $ 6.00 $ 5.45
Explanation
Protocol's basic EPS (net income / weighted average common shares outstanding) was $ 4,800,000 / 800,000 = $ 6.00. Diluted EPS is calculated under the assumption that the convertible bonds were converted into common stock, and the bond interest net of tax was restored to net income. The common shares from the conversion of the bonds are added to the denominator of the equation. Protocol's Diluted EPS was [$ 4,800,000 + (5,000 × $1,000 × 0.08) (1 − 0.40)]
/ [800,000 + (5,000 × 25)] = $ 5.45.
(Module 30.4, LOS 30.d)

53. (A) $1.19.

Explanation

Only the options and convertible preferred stock are dilutive. First, calculate basic EPS to use as a benchmark to determine dilutive capital components.

Basic EPS = (net income – preferred dividends) / weighted average common shares outstanding = (9.0 – 1.5) / 5.0 = $1.50.

Next, check for dilution.

- The stock options are dilutive because the exercise price is less than the average stock price. There is no numerator impact from the options. The denominator impact = # options – [(# options × exercise price) /average stock price)] = 400,000 – [(400,000 × 32) / 35] = 34,286 or 0.034 million.

- To check whether the convertible preferred stock is dilutive we need to determine whether it decreases EPS. To the numerator, we add back the preferred dividend. the denominator impact = (# preferred shares × conversion rate) = 500,000 × 5 = 2,500,000, or 2.5 million. Then, EPS = (9.0 – 1.5 + 1.5) / (5.0 + 2.5) = $1.20. Thus, the convertible preferred stock is dilutive.

- To check whether the convertible bonds are dilutive we need to determine whether they decrease EPS. To the numerator, we add back the after-tax impact of the coupon, or (face value × coupon × (1 – t)), or (10,000 bonds × 1,000 par × 0.06 coupon × 0.6) = 360,000, or $ 0.360 million. The denominator impact = (# convertible bonds × conversion rate) = 10,000 × 8 = 80,000, or 0.080 million. Then, EPS = (9.0 – 1.5 + 0.360) / (5.0 + 0.080) = $1.55. Thus, the bonds are antidilutive.

Finally, calculate diluted EPS:

Diluted EPS = (9.0 – 1.5 + 1.5) / (5.0 + 2.5 + 0.034) = $1.1946.

(Module 30.4, LOS 30.d)

54. (A) 250,000.

Explanation

The treasury stock method would allow the 1 million additional shares to be partially offset by the number of shares that could be repurchased with the amount of money received for those shares. In this case, the 1 million shares issued would be offset by (1,000,000 × $ 42 / $ 56) or 750,000 shares. Shares added = 1,000,000 – 750,000 = 250,000.

(Module 30.4, LOS 30.d)

55. (A) Costs of producing inventory.

Explanation

Inventory costs are expensed when items are sold under the matching principle. As an extreme example, if no sales are made, no costs of inventory production are expensed for the period. Period costs are expensed during the period. Under the accrual method, interest accrued during the period is expensed, regardless of whether it has been paid during the period.

(Module 30.2, LOS 30.b)

56. (B) $ 5.25.

Explanation

Moulding's basic EPS (net income / weighted average common shares outstanding) was $ 13,820,000 / 2,600,000 = $ 5.32.

Using the treasury stock method to compute diluted EPS, if the options were exercised, cash inflow would be 10,000 × 10 × $ 40 = $ 4,000,000. Based on the average share price of $ 58.00, the number of Moulding shares that can be purchased with the cash flow is $ 4,000,000 / $58 = 68,966. The number of shares that would have been created is 100,000 − 68,966 = 31,034. Diluted EPS was $13,820,000 / (2,600,000 + 31,034) = $ 5.25.

(Module 30.4, LOS 30.d)

57. (C) $0.261.

Explanation

To compute Gerrard's basic earnings per share (EPS) ((net income − preferred dividends) / weighted average common shares outstanding), the weighted average common shares outstanding must be computed. 700,000 shares were outstanding from January 1, and 200,000 shares were issued on March 1, so the weighted average is 700,000 + (200,000 × 10 / 12) = 866,667. Basic EPS was $ 330,000 − (2,000 × $ 500 × 0.08)) / 866,667 = $ 0.289. If the convertible preferred shares were converted to common stock, 2,000 × 200 = 400,000 additional common shares would have been issued and dividends on the preferred stock would not have been paid. Diluted EPS was $330,000 / (866,667 + 400,000) = $ 0.261.

(Module 30.4, LOS 30.d)

58. (A) assumes that the hypothetical funds received by the company from the exercise of the options are used to sell shares of the company's common stock in the market at the average market price.

Explanation

The treasury stock method assumes any funds received by the company from the exercise of the options are used to purchase shares (not sell shares) of the company's common stock in the market at the average market price.

(Module 30.4, LOS 30.d)

59. (A) $ 2.96.

Explanation

Doors basic earnings per share (EPS) was ($ 372,000 / 100,000 =) $ 3.72. If the bonds were converted, interest payments would not have been made. Net income is increased by the interest paid on the bonds net of taxes: $372,000 + (($1000 × 2,000 × 0.06) × (1 − 0.40)) = $ 444,000.

Diluted EPS was $444,000 / (100,000 + (2,000 × 25)) = $ 2.96.

(Module 30.4, LOS 30.d)

60. (C) 512,000.

Explanation

Dilution occurs since the exercise price for the warrants ($45) is less than the average market price for the shares ($50). The incremental number of shares outstanding is found from:

$$\left(\frac{\text{market price} - \text{exercise price}}{\text{market price}}\right) \times \text{\# warrants} = \left(\frac{50-45}{50}\right) \times 120,000$$

$$= 12,000$$

Number of shares to use in diluted EPS calculation = 500,000 + 12,000 = 512,000.

(Module 30.4, LOS 30.d)

61. (B) $ 16.00.

Explanation

$$\text{Basic EPS} = \text{Basic EPS} = \frac{53,000,000 - (0.07 \times 30,000,000)}{3,000,000} = \$16.97$$

The options are not dilutive because the exercise price is greater than the average price over the period.

Diluted EPS=
$$\frac{53,000,000 - (0.07 \times 30,000,000) + [10,000,000 \times 0.06 \times (1-0.30)]}{3,000,000 + 200,000} = \$16.04$$

(Module 30.4, LOS 30.d)

62. (B) 248.

Explanation

(992) ($ 9) = $ 8928

$ 8928 / 12 = 744

992 − 744 = 248 new shares or [(12 − 9) / 12]992 = 248

(Module 30.4, LOS 30.d)

63. (C) $ 0.782.

Explanation

Nichols basic EPS (net income / weighted average common shares outstanding) was: $ 978,000 / 1,250,000 = $ 0.782.

Because the exercise price of the warrants is higher than the average share price, the warrants are antidilutive and are excluded from diluted EPS. Because there were no other potentially dilutive securities, Nichols' diluted EPS in 20X6 is the same as basic EPS.

(Module 30.4, LOS 30.d)

64. (A) 1,440,000.

Explanation

The January 1 balance is adjusted retroactively for the stock split and (720,000 × 2 =) 1,440,000 shares are treated as outstanding from January.

(Module 30.4, LOS 30.d)

65. (B) $ 1.00.

Explanation

Number of average shares:

1/1 5,500 shares issued (includes 10% stock dividend on 6/1) × 12 = 66,000

7/1 1,000 shares repurchased × 6 months = 6,000

66,000 − 6,000 = 60,000

60,000 shares / 12 months = 5,000 average shares

Preferred dividends = ($10) ($1,000) = $10,000

Basic EPS = [$15,000(NI) − $10,000(preferred dividends)] / 5,000 shares = $ 5,000 / 5,000 shares = $1/share

(Module 30.4, LOS 30.d)

66. (A) $1.19 $1.18

Explanation

2004 Basic EPS:

$$\text{Basic EPS} = \frac{2,400,000 - 14,000}{2,000,000} = \$1.19$$

2004 Basic EPS:

$$2004 \text{ Diluted EPS} = \frac{(2,400,000 - 14,000) + (49,500)(1 - 0.40)}{(2,000,000) + (45,000)} = \$1.18$$

(Module 30.4, LOS 30.d)

67. (A) adjusted by adding back convertible preferred stock dividends.

Explanation

If convertible preferred stock is dilutive, the preferred dividends that would not have been paid if the preferred stock is converted must be added back to the numerator. Note that any nonconvertible preferred stock dividends are still subtracted from net income in the numerator.

(Module 30.4, LOS 30.d)

68. **(A)** **$ 117.75.**

Explanation

To compute Jupiter's basic earnings per share (EPS) use the formula:

(Net income − preferred dividends) / weighted average common shares outstanding. Weighted average common shares outstanding = [(115,000 × 12) + (60,000 × 9) − (45,000 × 3)] / 12 = 148,750.

Basic EPS = $18,300,000 / 148,750 = $123.02.

Using the treasury stock method, if the warrants were exercised cash inflow would be 200 × $100 × 100 = $ 2,000,000. The number of Jupiter shares that can be purchased with this cash at the average share price is $ 2,000,000 / $150

= 13,333. The net number of shares that would have been created is 20,000 − 13,333 = 6,667. Diluted EPS = $18,300,000 / (148,750 + 6,667) = $117.75. Since diluted EPS is less than basic EPS, the warrants are dilutive.

(Module 30.4, LOS 30.d)

69. **(A)** **$ 3.30 $ 2.86**

Explanation

Basic EPS = (net income − preferred dividends) / number of common shares = (200,000 − 35,000) / 50,000 = $3.30 per share

The preferred shares are converted into 20,000 common shares, the firm does not pay preferred dividends. Diluted EPS = 200,000 / (50,000 + 20,000) = $ 2.86 per share. The warrants are out of the money at a stock price of $ 20.

(Module 30.4, LOS 30.d)

70. **(B)** **Treasury Stock method.**

Explanation

The treasury stock method assumes the hypothetical funds received by the company from the exercise of the options are used to purchase shares of the company's common stock in the market at the average market price.

(Module 30.4, LOS 30.d)

71. **(A)** **added to earnings available to common shareholders without an adjustment for taxes.**

Explanation

Diluted EPS = [(Net income − Preferred dividends) + Convertible preferred dividends + (Convertible debt interest) (1 − t)] / [(Weighted average shares) + (Shares from conversion of conv. pfd shares) + (Shares from conversion of conv. debt) + (Shares issuable from stock options)]

(Module 30.4, LOS 30.d)

72. (C) 166,667.

Explanation

Diluted EPS uses average price. Since the average price is greater than the exercise price, the warrants are dilutive.

$$\frac{60-50}{60} \times 1,000,000 = 166,667$$

(Module 30.4, LOS 30.d)

73. (A) 2,225,000 shares.

Explanation

Basic EPS does not consider potential dilution from convertible bonds.

Original shares	=	2,000,000(12)	= 24,000,000
+Stock dividend	=	2,000,000(12)	= 2,400,000
+ New shares	=	100,000(3)	= 300,000
			26,700,000

$$\frac{26,700,000}{12} = 2,225,000$$

Alternatively, 2 million (1.1) + (1/4) (100,000) = 2.225 million.

(Module 30.4, LOS 30.d)

74. (A) 1,100,000.

Explanation

First, Check for dilution: Basic EPS = 1,500,000 / 1,000,000 = 1.50

Warrants: anti-dilutive since the average stock price is less than the exercise price

Convertible bonds: **numerator impact** = (# bonds) × (par value) × (interest rate) × (tax retention rate) × (0.5 for 1/2 year outstanding) = (10,000) × (100) × (0.06) × (0.6) × (0.5) = 18,000, so the numerator = 1,518,000 **Denominator impact:** increase in average shares = [(# bonds) × (conversion factor) × (# months outstanding)] / 12 = (1,200,000 / 12 = 100,000) so, the denominator = 1,100,000 and EPS with conversion = 1,518,000 / 1,100,000 = 1.38, which is less than 1.50. The bonds are dilutive and the diluted EPS calculation should use 1,100,000 shares of common stock in the denominator. The warrants are out of the money based on the average price of $ 20.

(Module 30.4, LOS 30.d)

75. (C) neither basic nor diluted EPS.

Explanation

Antidilutive securities would increase EPS if exercised or converted to common stock. Therefore, we do not assume they are converted when we calculate diluted EPS. Basic EPS is calculated before assuming any potentially dilutive securities are converted.

(Module 30.4, LOS 30.d)

76. (C) 5,250,000 shares.

Explanation

Applying the treasury stock method to the warrants, 5,000,000 + [500,000 − (500,000 × $ 20) / $ 40] = 5,250,000 shares. The options are antidilutive because their exercise price is higher than the average stock price for the year.

(Module 30.4, LOS 30.d)

77. (A) $ 1.53.

Explanation

Diluted EPS = adjusted earnings after conversion (EAC) / weighted average plus potential common shares outstanding.

Step 1: Calculate Adjusted EAC

adjusted EAC   net income - preferred dividends

  +   after-tax interest on convertible debt

  =   Adjusted earnings available for common shares

preferred dividends = (0.08) (90) (2,000) = 14,400

convertible debt interest = (60,000) (0.06) (1 − 0.40) = 2,160

adjusted EAC = (30,000 − 14,400 + 2,160) = $17,760

Step 2: Calculate Weighted average plus potential common shares outstanding

weighted average common shares		=	5,000
shares from conversion of convertible bonds	= (60 × 110) =	6,600
weighted ave. plus potential common shares outst		=	**11,600**

Step 3: Calculate Diluted EPS

Diluted EPS = 17,760 / 11,600 = **$1.53.**

(Module 30.4, LOS 30.d)

78. (B) $ 0.55 $ 0.52

Explanation

Able's basic earnings per share ((Net Income − Preferred Stock Dividends) / weighted average shares outstanding) for 2004 was [($ 720,000 − ($ 500 × 6,000 × 0.03) − ($1,000 × 1,000 × 0.08)] / 1,000,000 = $ 0.55. If the convertible preferred were converted to common stock on January 1, 6,000 × 40 = 240,000 additional shares would have been issued. Also, dividends on the convertible preferred would not have been paid. So diluted EPS was ($ 720,000 − 80,000) / (1,000,000 + 240,000) = $ 0.52.

(Module 30.4, LOS 30.d)

79.   (B)   interest expense per dollar of sales declined.

Explanation

On a common size income statement, all amounts are stated as a percentage of sales. Interest expense per dollar of sales has declined from 0.15 to 0.06. The other interpretations listed are not necessarily correct. COGS increased as a percentage of sales, but if sales decreased, COGS may have decreased as well. The company's effective tax rate (income tax expense / pretax income) can be calculated from a common-size income statement. Here the effective tax rate was 33% in both years.

(Module 30.5, LOS 30.e)

80.   (B)   1,016,667.

Explanation

Use the Treasury stock method:

Step1:   Determine the number of common shares created if the warrants are exercised =100,000.

Step 2:   Calculate the cash inflow if the warrants are exercised: (100,000) ($ 50 per share) = $ 5,000,000.

Step 3:   Calculate the number of shares that can be purchased with these funds using the average market price ($ 60 per share): 5,000,000 / 60
= 83,333 shares.

Step 4:   Calculate the net increase in common shares outstanding from the exercise of the warrants: 100,000 − 83,333 = 16,667.

Step 5:   Add the net increase in common shares from the exercise of the warrants to the number of common shares outstanding for the entire year: 1,000,000 + 16,667 = 1,016,667.

(Module 30.4, LOS 30.d)

81.   (C)   Decrease EPS.

Explanation

Dilutive securities such as convertibles and options are found in a complex capital

structure and always decrease EPS. Convertibles and options may also be antidilutive, which will increase EPS hence the name antidilutive. The only way to know if a security is dilutive or antidilutive is to compare the basic EPS to diluted EPS. If the diluted EPS is higher than the basic EPS then the security is antidilutive and should not be included when determining diluted EPS.

(Module 30.4, LOS 30.d)

82. (A) FIFO.

Explanation

The FIFO method recognizes the oldest costs in the cost of goods sold. With rising prices, COGS will be lower and net income will be higher using FIFO as compared to the LIFO or average cost methods. Higher net income relative to sales (which are not affected by the inventory cost method) means higher profit margins. **(Module 30.2, LOS 30.b)**

83. (B) None of these choices are correct.

Explanation

Anti-dilutive is when dilutive EPS > basic EPS. When calculating diluted EPS, you must add the shares created from the conversion of the bonds to the denominator and the interest (1 – tax rate) to the numerator.

(Module 30.4, LOS 30.d)

84. (B) $1.77.

Explanation

The question is asking for basic EPS. Thus, we can ignore the dilutive options and warrants.

Basic EPS = (net income – preferred dividends) / weighted average common shares outstanding

- The numerator = $7.5 million – $1.3 million = $ 6.2 million
- Calculating the denominator is a bit more work (calculation detailed in table below):

Event	Notes	Million Shares	# Months Outstanding	Total
Beginning Bal. (BB)		3.000	12	36.000
New issue (March 01)		0.100	10	1.00
Stock Dividend	15% on BB	0.450	12	5.400
Stock Dividend	15% on new issue	0.015	10	0.150
Repurchase (Sept .1)		-0.125	4	-0.500
			Total	42.050

(Module 30.4, LOS 30.d)

85. (C) 105,500.

Explanation

Initial shares: 90,000 × 1.20 = 108,000

– Reacquired treasury shares: 10,000 × 3/12 = _–2,500_

                                105,500

(Module 30.4, LOS 30.d)

86. **(B)** **3%, $100 par value convertible bond.**
    Explanation
    If convertible bonds exist, the firm has a complex capital structure.
    (Module 30.4, LOS 30.d)

87. **(A)** **Changes in accounting estimates are now treated the same as changes in accounting principles.**
    Explanation
    Changes in accounting estimates are not treated the same as changes in principles. Changes in principles are treated retrospectively, whereas changes in accounting estimates are accounted for in the current and future periods. Both remaining statements are accurate.
    (Module 30.3, LOS 30.c)

88. **(B)** **$2.00.**
    Explanation
    Interest is already deducted from earnings.

    $$\frac{300,000 - (0.10)(\$100)(10,000)}{110,000 - (6/12)(20,000)} = \$2.00$$

    (Module 30.4, LOS 30.d)

89. **(C)** **controlling operating expenses.**
    Explanation
    The improvement in net profit margin from 15% to 17% appears to result mainly from the firm reducing selling and administrative expense from 16% of sales to 9% of sales, thus decreasing operating expenses from 66% to 62% of sales. Gross margin is decreasing over this period because cost of goods sold is increasing as a percentage of sales. While financial leverage cannot be determined directly from the income statement, the fact that interest expense is a constant percentage of sales suggests financial leverage is stable.
    (Module 30.5, LOS 30.e)

90. **(B)** **performance obligation.**
    Explanation
    Performance obligations within a contract are defined as promises to transfer distinct goods or services.
    (Module 30.1, LOS 30.a)

91. **(C)** **zero salvage value to positive salvage value.**
    Explanation
    Changes in accounting principle require retrospective presentation. A change in the salvage value of an asset is a change in accounting estimate, which does not apply retrospectively.
    (Module 30.3, LOS 30.c)

92. (A) It requires restatement of any prior period results that are presented in the current financial statements.

Explanation

If a company changes from an incorrect method of accounting to an acceptable one, the company must disclose the nature of the error and its effect on net income, and restate any prior period results that are presented in the current financial statements.

(Module 30.3, LOS 30.c)

93. (A) Convertible bonds.

Explanation

A complex capital structure means a firm has securities outstanding that can be converted to common shares, and therefore have the potential to dilute a firm's earnings per share. For example, convertible bonds, convertible preferred stock, options, and warrants have the potential to dilute earnings per share upon conversion or exercise.

(Module 30.4, LOS 30.d)

94. (C) 7,500,000 shares.

Explanation

Stock splits and stock dividends are applied to all shares that existed at the beginning of the period and shares that were issued or repurchased during the period, but prior to the split or dividend. For SSP, the 5 million beginning-of-year shares outstanding are adjusted to 7.5 million shares (5.0 × 3/2) as a result of the 3:2 split.

(Module 30.4, LOS 30.d)

95. (C) $ 4.00.

Explanation

The new shares were only outstanding 4 months of the year. Thus, the weighted average number of shares outstanding is [1.4 + (4/12)(1.2)] million = 1.8 million shares. So basic EPS = $7.2 million / 1.8 million = $4.00.

(Module 30.4, LOS 30.d)

96. (A) Increase No effect

Explanation

When a firm recognizes revenue before cash is collected, equity increases (retained earnings) and assets increase (accounts receivable). When a product is sold on credit, accounts receivable (an asset) increases and inventory (also an asset) decreases. As long as the sale price of the product is more than the expense (reduction of inventory on the balance sheet), total assets will increase. Liabilities are not affected.

(Module 30.2, LOS 30.b)

97. (A) 2,689.

Explanation

If the warrants were exercised, the firm would receive the exercise price for each warrant:

9,986 × $ 38 = $ 379,468

Using the treasury stock method, we assume the firm uses this cash to repurchase shares at the average price for the year:

$ 379,468 / $52 = 7,297 common shares

If these repurchased shares were used toward fulfilling the warrants, the firm would need to issue 9,986 – 7,297 = 2,689 new common shares to fulfill the rest of the warrants.

(Module 30.4, LOS 30.d)

98. (C) 150,000.

Explanation

Connecticut's January 1 balance of common shares outstanding is adjusted retroactively for the 1 for 3 reverse stock split, meaning there are (360,000 / 3) = 120,000 "new" shares treated as if they had been outstanding since January 1. The weighted average of the shares issued in July, (60,000 × 6 / 12) = 30,000 is added to that figure, for a total of 150,000.

(Module 30.4, LOS 30.d)

99. (A) both IFRS and U.S. GAAP.

Explanation

Both U.S. GAAP and IFRS require companies to capitalize the interest that accrues during the construction of capital assets for their own use.

(Module 30.2, LOS 30.b)

100. (A) 3%, $100 par value convertible preferred.

Explanation

A simple capital structure contains no potentially dilutive securities such as stock options, warrants, or convertible preferred stock.

(Module 30.4, LOS 30.d)

101. (B) average market price of Young common stock increased in 20X5.

Explanation

Average stock price is not a factor in determining whether convertible bonds are dilutive or antidilutive.

If Young redeemed the bonds, they would have no potentially dilutive securities outstanding in 20X5 and diluted EPS, if the company reported it, would equal basic EPS. Basic and diluted EPS would also be equal in 20X5 if the bonds were antidilutive in that year.

(Module 30.4, LOS 30.d)

102. (C) 41,550,000.

Explanation

Outstanding all year	$10,000,000 \times 2 \times 2 \times 1$	40,000,000
Outstanding for 0.75 years	$500,000 \times 2 \times 2 \times 0.75$	1,500,000
Outstanding for 0.25 years	$100,000 \times 2 \times 0.25$	50,000
Weighted average number of shares for year:		41,550,000

(Module 30.4, LOS 30.d)

103. (B) $ 3.40.

Explanation

Orange's basic EPS ((net income − preferred dividends) / weighted average common shares outstanding) is [($ 7,600,000 − (10,000 × $1,000 × 0.08)] / 2,000,000 = $3.40. To check for dilution, EPS is calculated under the assumption that the convertible preferred shares are converted into common shares at the beginning of the year. The preferred dividends paid are added back to the numerator of the Diluted EPS equation, and the additional common shares are added to the denominator of the equation. Orange's if-converted EPS is $ 7,600,000 / (2,000,000 + 200,000) = $ 3.45. Because if-converted EPS is higher than basic EPS, the preferred stock is antidilutive and no adjustment is made to basic EPS.

(Module 30.4, LOS 30.d)

104. (B) average market price of Zachary increased.

Explanation

An increase in average market price could cause Zachary's warrants to go from antidilutive to dilutive. If the average price of the stock increases during the year, the warrants are likely to be exercised at some point during the year. Neither of the other choices would do this.

(Module 30.4, LOS 30.d)

105. (C) Diluted EPS must be less than or equal to basic EPS.

Explanation

Antidilutive securities are securities that would increase EPS if exercised or converted to common stock.

(Module 30.4, LOS 30.d)

106. (B) $ 0.98.

Explanation

Use the Treasury stock method
Proceeds = 100,000 ($ 40) = $ 4,000,000
Shares assumed purchased with proceeds= $ 4,000,000/$ 50 = 80,000 shares
Potential dilution = 100,000 − 80,000 = 20,000 shares
Basic EPS = $1/share
Diluted EPS = $1,000,000 / 1,020,000 = $0.98/share

(Module 30.4, LOS 30.d)

107. (A) $ 55.00 $48.00

Explanation

Rushford's basic EPS (net income / weighted average common shares outstanding) is $16,500,000 / 300,000 = $55.00. Diluted EPS is calculated under the assumption that the convertible bonds were converted into common stock, the bond interest net of tax is restored to net income, and the additional common shares are added to the denominator of the equation. Rushford's diluted EPS is [$16,500,000 + (50,000 × $1,000 × 0.09) (1 - .40)] / (300,000 + (50,000 × 2) = $ 48.00.

(Module 30.4, LOS 30.d)

108. (A) Shares issued after a stock split must be adjusted for the split.

Explanation

Shares issued post-split need not be adjusted for the split as they are already "new" shares. Options with an exercise price greater than the average share price do not affect diluted EPS.

(Module 30.4, LOS 30.d)

109. (B) $ 1.95 $1.86

Explanation

Basic EPS   : [400,000 − 10,000] / 200,000 shares = $1.95 per share
Diluted EPS   : [400,000 + (30,000 × 0.6)] / [200,000 + 10,000 + 15,000] = $1.86 per share

(Module 30.4, LOS 30.d)

110. (A) 231.

Explanation

(999) (10) = 9,990
9,990 / 13 = 768
999 − 768 = 231

(Module 30.4, LOS 30.d)

111. (B) 325.

Explanation

(1,039 options) ($11) = $11,429
$11,429 / $16 per share
1039 – 714 = 325 shares or [(16 – 11) / 16]1,039 = 325.

(Module 30.4, LOS 30.d)

112. (C) $ 3.75.

Explanation

Basic EPS = ($120,000 − 40,000 − 5,000) / 20,000 shares = $3.75.

(Module 30.4, LOS 30.d)

113. (C) 1,200,000.

Explanation

original shares of common stock	=	1,000,000(12)	=	12,000,000
stock dividend	=	100,000(12)	=	1,200,000
new shares of common stock	=	400,000(3)	=	1,200,000
total shares of common stock	=	$\dfrac{14,400,000}{12}$	=	1,200,000

(Module 30.4, LOS 30.d)

114. (C) 484,000.

Explanation

[400,000 shares × 12 months + 40,000 × 12 months + 90,000 × 6 months - (12,000 × 1 months)] divided by 12 = 484,000 shares.

(Module 30.4, LOS 30.d)

115. (C) $ 2.01.

Explanation

Quad's basic EPS (net income / weighted average common shares outstanding) was $ 892,000 / 400,000 = $ 2.23.

Diluted EPS is calculated under the assumption that the convertible bonds are converted into common stock, the bond interest net of tax is restored to net income, and the additional common shares are added to the denominator of the equation. Quad's diluted EPS was [$892,000 + (2,000 × $1,000 × 0.06) (1 − 0.40)] / [400,000 + (2,000 × 40)] = $2.01. Since diluted EPS is less than basic EPS, we know that the bonds are dilutive and should be considered in calculating diluted EPS.

(Module 30.4, LOS 30.d)

116. (B) converting them to common shares would actually reduce earnings per share, compared to basic earnings per share.

Explanation

Securities are dilutive if they would decrease EPS (compared to basic EPS) if they are exercised or converted to common stock. Potentially dilutive securities include any that can be converted to common shares now or at any time in the future. Assuming conversion of securities such as convertible bonds or convertible preferred stock typically increases earnings available to common shareholders; these securities are dilutive to EPS if they increase common shares relatively more than they increase earnings available to common.

(Module 30.4, LOS 30.d)

117. (A) **0.**

Explanation

The calculation for basic EPS is not adjusted for the impact of potentially dilutive securities.

(Module 30.4, LOS 30.d)

118. (A) **$ 8.32.**

Explanation

Indigo's weighted average common shares = [(500,000 × 12) + (200,000 × 6) − (100,000 × 3)] / 12 = 575,000. Basic EPS = $5,600,000 / 575,000 = $9.74.

For diluted EPS, assume the bonds were converted on January 1, and that interest

payments were not made on the bonds. Increasing net income by the amount of bond interest net of tax = $5,600,000 + [6,000 × $1,000 × 0.05 × (1 − 0.40)] = $5,780,000. Diluted EPS = $5,780,000 / (575,000 + 120,000) = $8.32.

(Module 30.4, LOS 30.d)

119. (B) **in the same order the units are produced.**

Explanation

The FIFO cost flow method best approximates the physical flow of goods if customers typically purchase units in the order the units are produced, such as goods with a limited shelf life. Last-in-first-out (LIFO) best approximates the flow of goods if customers purchase units from the top of a stack, as with raw materials such as coal or gravel. If customers choose individual units selectively from among all the units for sale, the flow of goods may be unclear and the average cost method may describe it best.

(Module 30.2, LOS 30.b)

120. (B) **$ 3.94.**

Explanation

Kendall's basic EPS is $830,000 / 200,000 = $4.15. To compute diluted EPS, bond interest paid net of taxes is added to net income, and the number of shares that would be issued in the conversion is added to the denominator. Kendall's diluted EPS = [$830,000 + (1,000 × $1,000 × 0.06) × (1 − 0.4)] / (200,000
+ 20,000) = $3.94. Since diluted EPS is less than basic EPS, we know that the bonds are dilutive and should be considered in calculating diluted EPS.

(Module 30.4, LOS 30.d)

121. (A) **306.**

Explanation

(816) (5) = $4,080. $4,080 / $8 = 510 shares. 816 − 510 = 306 new shares or [(8 − 5) / 8]816 = 306.

(Module 30.4, LOS 30.d)

122. (A) $1.15.

Explanation

The firm's basic EPS = ($1,700,000 – $1,100,000) / (523,000) = $1.147.

(Module 30.4, LOS 30.d)

123. (A) nonoperating expenses are increasing.

Explanation

Nonoperating expenses are equal to the difference between operating profit and pretax profit. Based on the given profit margins, Mulroy's nonoperating expenses increased from 3% of sales in 20X1 to 9% of sales in 20X3. Because gross profit margin is increasing, cost of goods sold is decreasing as a percentage of sales. Other operating expenses and income tax expense, as a percentage of sales, were stable over the period shown.

(Module 30.5, LOS 30.e)

124. (A) dividends paid to common shareholders.

Explanation

Basic EPS = earnings available to common shareholders divided by the weighted average number of common shares outstanding. Earnings available to common shareholders equals net income minus preferred dividends.

(Module 30.4, LOS 30.d)

125. (C) $ 1.00.

Explanation

Number of average common shares:

1/1 5,500 shares issued (includes 10% stock dividend on 6/1) × 12 = 66,000

7/1 1,000 shares repurchased × 6 months = -6,000

= 60,000

60,000 shares / 12 months = 5,000 average shares

Preferred dividends = ($10) (1,000) = $10,000

Number of shares from the conversion of the preferred shares = (1,000 preferred shares) (8 × 1.1 shares of common/share of preferred) = 8,800 common

Diluted EPS = [$15,000(NI) – $10,000(pfd) + $10,000(pfd)] / (5,000 common shares + 8,800 shares from the conv. pfd.) = $15,000 / 13,800 shares = $1.09/share

This number needs to be compared to basic EPS to see if the preferred shares are antidilutive.

Basic EPS = [$15,000(NI) – $10,000(preferred dividends)] / 5,000 shares = $ 5,000 / 5,000 shares = $1/share

Since the EPS after the conversion of the preferred shares is greater than before the conversion the preferred shares are antidilutive and they should not be treated as common in computing diluted EPS. Therefore, diluted EPS is the same as basic EPS or $1/share.

(Module 30.4, LOS 30.d)

126. (B) $ 0.457.

Explanation

50,000,000 common shares × 12 months = 600,000,000

5,000,000 common shares × 6 months = 30,000,000 = 630,000,000

630,000,000 / 12 = 52,500,000 average shares

[$25,000,000(NI) − $1,000,000(preferred dividends)] / 52,500,000 shares = $24,000,000 / 52,5000,000 = $0.457

(Module 30.4, LOS 30.d)

127. (B) $ 14.67.

Explanation

To compute Hampshire's basic EPS ((net income − preferred dividends) / weighted average common shares outstanding), the weighted average common shares must be computed. 100,000 shares were outstanding from January 1, and 30,000 shares were issued on September 1, so the weighted average is 100,000 + (30,000 × 4 / 12) = 110,000. Basic EPS is ($ 2,800,000 − (10,000 × $ 1,000 × 0.06)) / 110,000 = $ 20.00.

If the warrants were exercised, cash inflow would be 10,000 × $150 × 10 = $15,000,000 for 10 × 10,000 = 100,000 shares. Using the treasury stock method, the number of Hampshire shares that can be purchased with the cash inflow (cash inflow / average share price) is $ 15,000,000 / $ 250 = 60,000. The number of shares that would be created is 100,000 − 60,000 = 40,000. Diluted EPS is $2,200,000 / (110,000 + 40,000) = $14.67.

(Module 30.4, LOS 30.d)

128. (C) 485,000.

Explanation

Only the October 1 transaction affects the weighted average common shares outstanding because the April 1 transaction would not affect the number of shares outstanding and the July 1 transaction involves warrants which would not be included in the basic EPS calculation. The computation for basic EPS is [(500,000 × 12) − (60,000 × 3)] / 12 = 485,000.

(Module 30.4, LOS 30.d)

129. (A) 197,500.

Explanation

The January 1 balance is adjusted retroactively for the reverse stock split and 320,000 / 2 = 160,000 shares are treated as outstanding from January 1. Issuance of stock is included from the date of issuance. The weighted average shares are computed by multiplying the share amounts by the number of months the shares were outstanding, then adding these amounts and dividing the sum by 12.

January 1:	initial shares	$160,000 \times 12$	=	1,920,000
July 1:	Smith acquisition	$60,000 \times 6$	=	360,000
October 1:	cash issuance	$30,000 \times 3$	=	90,000
	Total:			2,370,000

Oregon's weighted average shares = 2,370,000 / 12 = 197,500.

(Module 30.4, LOS 30.d)

130. (A) If diluted and basic EPS are equal, the firm must report both basic and diluted EPS.

Explanation

A firm with any potentially dilutive securities outstanding must report both basic and diluted EPS, even if the two are equal. If convertible preferred stock is dilutive to earnings per share, the preferred dividend is added back to the numerator as if the preferred has been converted to common shares. If diluted EPS is less than basic EPS then the convertible preferred is said to be dilutive.

(Module 30.4, LOS 30.d)