Problem 15-2A (60 minutes)

Part 1

Year 1

Jan. 20	**Debt Investments—AFS**	**20,500**	
	Cash		**20,500**
	Purchased Johnson & Johnson bonds.		
Feb. 9	**Debt Investments—AFS**	**55,440**	
	Cash		**55,440**
	Purchased Sony notes.		
June 12	**Debt Investments—AFS**	**40,500**	
	Cash		**40,500**
	Purchased Mattel bonds.		
Dec. 31	**Fair Value Adjustment—AFS***	**3,910**	
	Unrealized Gain—Equity		**3,910**
	Adjustment to fair value of LT AFS portfolio.		

*	Cost	Fair Value
J & J	$ 20,500	$ 21,500
Sony	55,440	52,500
Mattel	40,500	46,350
Total	$116,440	$120,350

FVA: $120,350 - $116,440 = $3,910

We can also use a T-account to determine the needed adjustment to fair value:

12/31/Year 1—F.V. Adj—AFS (LT)	
Unadj.	0
Adj.	3,910
End.	3,910

Problem 15-2A *(Continued)*

Year 2

Apr. 15	**Cash**	**23,500**	
	Gain on Sale of Debt Investments		**3,000**
	Debt Investments—AFS		**20,500**
	Sold Johnson & Johnson bonds.		
July 5	**Cash**	**35,850**	
	Loss on Sale of Debt Investments	**4,650**	
	Debt Investments—AFS		**40,500**
	Sold Mattel bonds.		
July 22	**Debt Investments—AFS**	**13,500**	
	Cash		**13,500**
	Purchased Sara Lee notes.		
Aug. 19	**Debt Investments—AFS**	**15,300**	
	Cash		**15,300**
	Purchased* Kodak *bonds.		
Dec. 31	**Fair Value Adjustment—AFS***	**1,175**	
	Unrealized Gain—Equity		**1,175**
	Adjustment to fair value of LT AFS portfolio.		

*	Cost	Fair Value
Kodak	$15,300	$17,325
Sara Lee	13,500	12,000
Sony	55,440	60,000
Total	$84,240	$89,325

$89,325 - $84,240 = $5,085

Fair Value Adjustment account:
Required balance..... $5,085 Dr.
Unadjusted balance.. 3,910 Dr.
Required change..... $1,175 Dr.

We can also use a T-account to determine the needed adjustment to fair value:

12/31/Year 2—F.V. Adj—AFS (LT)		
Unadj.	3,910	
Adj.	1,175	
End.	5,085	

Problem 15-2A *(Continued)*

Year 3

Feb. 27	**Debt Investments—AFS**	**160,800**	
	Cash		**160,800**
	Purchased Microsoft bonds.		
June 21	**Cash**	**57,600**	
	Gain on Sale of Debt Investments		**2,160**
	Debt Investments—AFS		**55,440**
	Sold Sony notes.		
June 30	**Debt Investments—AFS**	**50,400**	
	Cash		**50,400**
	Purchased Black & Decker bonds.		
Aug. 3	**Cash**	**9,750**	
	Loss on Sale of Debt Investments	**3,750**	
	Debt Investments—AFS		**13,500**
	Sold Sara Lee notes.		
Nov. 1	**Cash**	**20,475**	
	Gain on Sale of Debt Investments		**5,175**
	Debt Investments—AFS		**15,300**
	Sold Kodak bonds.		
Dec. 31	**Unrealized Gain—Equity**	**3,085**	
	Fair Value Adjustment—AFS*		**3,085**
	Adjustment to fair value of LT AFS portfolio.		

*	Cost	Fair Value
Black & Decker	$ 50,400	$ 54,600
Microsoft	160,800	158,600
Total	$211,200	$213,200

$213,200 - $211,200 = $2,000 (fair value exceeds cost)

Fair Value Adjustment account:

Required balance	$2,000 Dr.
Unadjusted balance	5,085 Dr.
Required change	$3,085 Cr.

We can also use a T-account to determine the needed adjustment to fair value:

12/31/Year 3—F.V. Adj—AFS (LT)			
Unadj.	5,085		
		Adj.	3,085
End.	2,000		

Problem 15-2A *(Concluded)*

Part 2

Debt Investments	12/31/Yr. 1	12/31/Yr. 2	12/31/Yr. 3
Long-Term AFS Securities (cost)	$116,440	$84,240	$211,200
Fair Value Adjustment—AFS	3,910	5,085	2,000
Long-Term AFS Securities (fair value)	$120,350	$89,325	$213,200

Part 3

	Year 1	Year 2	Year 3
Realized gains (losses)			
Sale of Johnson & Johnson		$ 3,000	
Sale of Mattel		(4,650)	
Sale of Sony			$ 2,160
Sale of Sara Lee			(3,750)
Sale of Kodak			5,175
Total realized gain (loss)	$ 0	$ (1,650)	$ 3,585
Unrealized gains (losses) at year-end*	$ 3,910	$ 5,085	$ 2,000

***The unrealized gains (losses) at year-end are reported in the Fair Value Adjustment—AFS account balance (see the matching row in part *2*).**

Problem 15-4A (40 minutes)

Part 1

Apr. 16	**Stock Investments**	**84,000**	
	Cash		**84,000**
	Purchased shares of Gem (3,500 sh x $24).		
July 7	**Stock Investments**	**98,000**	
	Cash		**98,000**
	Purchased shares of PepsiCo (2,000 sh x $49).		
20	**Stock Investments**	**16,000**	
	Cash		**16,000**
	Purchased shares of Xerox (1,000 sh x $16).		
Aug. 15	**Cash**	**3,500**	
	Dividend Revenue		**3,500**
	Received dividends on Gem (3,500 sh x $1.00).		
28	**Cash***	**60,000**	
	Stock Investments**		**48,000**
	Gain on Sale of Stock Investments		**12,000**
	Sold 2,000 shares of Gem.		
	****2,000 sh x $30 **$84,000 x (2,000 sh / 3,500 sh)***		
	or 2000 sh x $24		
Oct. 1	**Cash**	**5,000**	
	Dividend Revenue		**5,000**
	Received dividends on PepsiCo (2,000 sh x $2.50).		
Dec. 15	**Cash**	**1,500**	
	Dividend Revenue		**1,500**
	Received dividends on Gem (1,500 sh x $1.00).		
31	**Cash**	**3,000**	
	Dividend Revenue		**3,000**
	Received dividends on PepsiCo (2,000 sh x $1.50).		

Problem 15-4A *(Continued)*

Part 2

Comparison of Cost and Fair Values for Stock Investments Portfolio at Year-End

		Cost	Fair Value	Unrealized Gain (Loss)
Gem Co.	1,500 x $24	$ 36,000		
	1,500 x $26		$ 39,000	
PepsiCo	2,000 x $49	98,000		
	2,000 x $46		92,000	
Xerox	1,000 x $16	16,000		
	1,000 x $13		13,000	
		$150,000	$144,000	$(6,000)

Part 3

Dec. 31	Unrealized Loss—Income	6,000	
	Fair Value Adjustment—Stock		6,000
	Record unrealized loss in fair value of ST portfolio.		

Part 4

The balance sheet would report the cost of these short-term stock investments at $150,000 and show a subtraction of $6,000 for the fair value adjustment. This yields $144,000 as the fair value for these securities reported in the current assets section.

Current Assets		
Stock investments (as cost)	$150,000	
Fair value adjustment—Stock	(6,000)	
Stock investments (at fair value)		$144,000

An alternative presentation is to list these securities at the fair value of $144,000 with a note disclosure of the $150,000 cost.

Part 5

(a) Income statement

(i) Dividend Revenue, $13,000 [$3,500 + $5,000 + $1,500 + $3,000]

(ii) Gain on Sale of Stock Investments, $12,000

(iii) Unrealized Loss—Income, $6,000

(iv) Net effect on income is $19,000 [$13,000 + $12,000 - $6,000]

(b) Equity section of Balance sheet

(i) Increase to equity from the $19,000 increase in income

Problem 15-5A (30 minutes)

Journal entries—Assuming significant influence

Year 1			
Jan. 5	**Equity Method Investments**	**1,560,000**	
	Cash		**1,560,000**
	Purchased Kildaire shares.		
Oct. 23	**Cash**	**192,000**	
	Equity Method Investments		**192,000**
	Received cash dividend on Kildaire shares (60,000 sh x $3.20).		
Dec. 31	**Equity Method Investments**	**232,800**	
	Earnings from Equity Method Investments		**232,800**
	Record equity in investee Kildaire earnings ($1,164,000 x 20%).		
Year 2			
Oct. 15	**Cash**	**156,000**	
	Equity Method Investments		**156,000**
	Record cash dividend (60,000 sh x $2.60).		
Dec. 31	**Equity Method Investments**	**295,200**	
	Earnings from Equity Method Investments		**295,200**
	Record equity in investee Kildaire earnings ($1,476,000 x 20%).		
Year 3			
Jan. 2	**Cash**	**54,200**	
	Gain on Sale of Stock Investments		**2,000**
	Equity Method Investments*		**52,200**
	Sold Kildaire shares. 3% x $1,740,000*		

*** Investment carrying value at Jan. 2, Year 3**	
Original cost	**$1,560,000**
Less Year 1 dividends	**(192,000)**
Plus Year 1 earnings	**232,800**
Less Year 2 dividends	**(156,000)**
Plus Year 2 earnings	**295,200**
Carrying value at date of sale	**$1,740,000**

Problem 10-2A (25 minutes)

Cost of machine	$257,500
Less estimated salvage value	20,000
Total depreciable cost	$237,500

Year	Straight-Line[a]	Units-of-Production[b]	Double-Declining-Balance[c]
1	$ 59,375	$110,000	$128,750
2	59,375	62,300	64,375
3	59,375	60,900	32,188
4	59,375	4,300	12,187
Totals.....	$237,500	$237,500	$237,500

[a]Straight- line:
Cost per year = $237,500/4 years = $59,375 per year

[b]Units-of-production:
Cost per unit = $237,500/475,000 units = $0.50 per unit

Year	Units	Unit Cost	Depreciation
1	220,000	$0.50	$110,000
2	124,600	0.50	62,300
3	121,800	0.50	60,900
4	15,200	0.50	4,300*
Total.....			$237,500

* Take only enough depreciation in Year 4 to reduce book value to the asset's $20,000 salvage value.

[c]Double-declining-balance:
(100%/4) x 2 = 50% depreciation rate

Year	Beginning Book Value	Annual Depreciation (50% of Book Value)	Accumulated Depreciation at the End of the Year	Ending Book Value ($257,500 Cost Less Accumulated Depreciation)
1	$257,500	$128,750	$128,750	$128,750
2	128,750	64,375	193,125	64,375
3	64,375	32,188*	225,313	32,187
4	32,187	12,187**	237,500	20,000
Total...		$237,500		

* rounded
**Take only enough depreciation in Year 4 to reduce book value to the asset's $20,000 salvage value.

Problem 10-4A (50 minutes)

2016

Jan.	1	Equipment	300,600	
		Cash		300,600
		Record loader costs ($287,600 +$11,500 +$1,500).		
Jan.	3	Equipment	4,800	
		Cash		4,800
		Record betterment of loader.		
Dec.	31	Depreciation Expense—Equipment	70,850*	
		Accumulated Depreciation—Equipment		70,850
		Record depreciation.		

*2016 depreciation after January 3rd betterment	
Total original cost	$300,600
Plus cost of betterment	4,800
Revised cost of equipment	305,400
Less revised salvage ($20,600 + $1,400)	22,000
Cost to be depreciated	283,400
Annual depreciation ($283,400 / 4 years)	$ 70,850

2017

Jan.	1	Equipment	5,400	
		Cash		5,400
		Record extraordinary repair on loader.		
Feb.	17	Repairs Expense—Equipment	820	
		Cash		820
		Record ordinary repair on loader.		
Dec.	31	Depreciation Expense—Equipment	43,590*	
		Accumulated Depreciation—Equipment		43,590
		Record depreciation.		

*2017 depreciation after January 1st extraordinary repair	
Total cost ($305,400 + $5,400)	$310,800
Less accumulated depreciation	70,850
Book value	239,950
Less salvage	22,000
Remaining cost to be depreciated	$217,950
Revised remaining useful life (Original 4 years - 1yr. + 2yrs.)	5 yrs.
Revised annual depreciation ($217,950 / 5 yrs)	$ 43,590

Problem 10-6A (20 minutes)

1.

Jan. 2	Machinery		178,000	
	Cash			178,000
	Record machinery purchase.			
Jan. 3	Machinery		2,840	
	Cash			2,840
	Record machinery costs.			
Jan. 3	Machinery		1,160	
	Cash			1,160
	Record machinery costs.			

2. a. First year

Dec. 31	Depreciation Expense—Machinery	28,000	
	Accumulated Depreciation—Machinery		28,000
	Record depreciation [($182,000 - $14,000)/6].		

b. Fifth year

Dec. 31	Depreciation Expense—Machinery	28,000	
	Accumulated Depreciation—Machinery		28,000
	Record depreciation.		

3. Accumulated depreciation at the date of disposal

Five years' depreciation (5 x $28,000)	$140,000
Book value at the date of disposal	
Original total cost	$182,000
Accumulated depreciation	(140,000)
Book value	$ 42,000

a. ***Sold for $15,000 cash***

Dec. 31	Cash	15,000	
	Loss on Sale of Machinery	27,000	
	Accumulated Depreciation—Machinery	140,000	
	Machinery		182,000

b. ***Sold for $50,000 cash***

Dec. 31	Cash	50,000	
	Accumulated Depreciation—Machinery	140,000	
	Machinery		182,000
	Gain on Sale of Machinery		8,000

c. ***Destroyed in fire and collected $30,000 cash from insurance co.***

Dec. 31	Cash	30,000	
	Accumulated Depreciation—Machinery	140,000	
	Loss from Fire	12,000	
	Machinery		182,000