Tutorial questions (P7-5A, P7-7A, P7-8A)

Problem 7-5A (LO 7-4)

Requirement 1 Straight-Line

University Car Wash

	Calculation				End of Year Amounts		
Year	**Depreciable Cost***	**X**	**Depreciation Rate**	**=**	**Depreciation Expense**	**Accumulated Depreciation**	**Book Value****
1	$246,000		1/6		**$41,000**	$ 41,000	$229,000
2	246,000		1/6		**41,000**	82,000	188,000
3	246,000		1/6		**41,000**	123,000	147,000
4	246,000		1/6		**41,000**	164,000	106,000
5	246,000		1/6		**41,000**	205,000	65,000
6	246,000		1/6		**41,000**	246,000	**24,000**
Total					**$246,000**		

* $270,000 – $24,000 = $246,000
** $270,000 cost minus accumulated depreciation

Requirement 2 Double-declining-balance

University Car Wash

	Calculation				End of Year Amounts		
Year	**Beginning Book Value**	**X**	**Depreciation Rate***	**=**	**Depreciation Expense**	**Accumulated Depreciation**	**Book Value****
1	$270,000		1/3		**$90,000**	$ 90,000	$180,000
2	180,000		1/3		**60,000**	150,000	120,000
3	120,000		1/3		**40,000**	190,000	80,000
4	80,000		1/3		**26,667**	216,667	53,333
5	53,333		1/3		**17,778**	234,445	35,555
6	35,555				**11,555*****	246,000	**24,000**
Total					**$246,000**		

* 2 / 6 years = 1/3 per year
** $270,000 cost minus accumulated depreciation
*** Amount needed to reduce book value to residual value.

Requirement 3 **Activity-based**

University Car Wash								
	Calculation				**End of Year Amounts**		
Year	**Hours Used**	**X**	**Depreciation Rate***	**=**	**Depreciation Expense**	**Accumulated Depreciation**	**Book Value****
1	3,100		$20.50		**$63,550**	$ 63,550	$206,450
2	1,100		$20.50		**22,550**	86,100	183,900
3	1,200		$20.50		**24,600**	110,700	159,300
4	2,800		$20.50		**57,400**	168,100	101,900
5	2,600		$20.50		**53,300**	221,400	48,600
6	1,200		$20.50		**24,600**	246,000	**24,000**
Total	12,000				**$246,000**		

* $246,000 / 12,000 hours = $20.50/hour

** $270,000 cost minus accumulated depreciation

*** Amount needed to reduce book value to residual value.

Problem 7-7A (LO 7-4, 7-5)

Requirement 1

	Debit	Credit
Depreciation Expense	**58,880***	
Accumulated Depreciation		**58,880**
(*Depreciate building*)		
* $294,400 x 2/10		
Depreciation Expense	**25,000***	
Accumulated Depreciation		**25,000**
(*Depreciate equipment*)		
* ($235,000 – $10,000)/9		

Requirement 2

	Debit	Credit
Amortization Expense	**50,000***	
Patent		**50,000**
(*Amortize patent*)		
* $250,000/5		

Requirement 3

Solich Sandwich Shop
December 31, 2024

	Cost	Accumulated Depreciation	Book Value
Land	$ 95,000	–	$ 95,000
Building	460,000	$(224,480)	235,520
Equipment	235,000	(75,000)	160,000
Patent	250,000	(150,000)	100,000

Problem 7-8A (LO 7-6)

Requirement 1

$$\$170,000 = \frac{\$910,000 - \$60,000}{10} \times 2 \text{ years}$$

Requirement 2

Cost of the oven	$910,000
Less: Accumulated depreciation	(170,000)
Book value at the end of year 2	$740,000

Requirement 3

Sale amount		$700,000
Less:		
Cost of the oven	$910,000	
Less: Accumulated depreciation	(170,000)	
Book value at the end of year 2		740,000
Loss		$ (40,000)

Requirement 4

	Debit	Credit
Cash	**700,000**	
Accumulated Depreciation	**170,000**	
Loss	**40,000**	
Equipment		**910,000**
(Sell equipment for a loss)		

Take-home questions (P7-1A, P7-4A, P7-6A, AP7-5)

Problem 7-1A (LO 7-1)

	Land	Building
Purchase price of land	$70,000	
Demolition of old building	9,000	
Sale of salvaged materials	(1,100)	
Architect fees (for new building)		$ 20,000
Legal fees (for title investigation of land)	3,000	
Building construction costs		600,000
Interest costs related to the construction		23,000
Totals	$80,900	$643,000

The property taxes on the land of $4,000 will be recorded as property tax expense over the first year.

Problem 7-4A (LO 7-3)

1. Capitalize
2. Expense
3. Capitalize
4. Capitalize
5. Expense
6. Expense

Problem 7-6A (LO 7-5)

Requirement 1

a. Goodwill is not amortized.

	Debit	Credit
b. **Amortization Expense. . . . .**	**11,750***	
Patents		**11,750**
(*Amortize patent)*		
* $82,250 / 7 years		
c. Amortization Expense.	**18,500***	
Franchises.		**18,500**
(*Amortize franchise*)		
* ($333,000 / 9 years) x ½ year		

Requirement 2

University Testing Services
Balance Sheet
December 31, 2024
(Intangible Assets section)

Intangible Assets	
Goodwill	$310,000
Patents ($82,250 – $11,750)	70,500
Franchises ($333,000 – $18,500)	314,500
Total intangible assets	$695,000

RWP7-6

1. Yes.
Depreciation is affected by management’s choice of depreciation method (such as straight-line, double-declining-balance, or activity-based) and by management’s estimate of the asset’s useful service life and residual value. Depreciation expense is reported as an expense in the income statement. Accumulated Depreciation is reported as a contra asset in the balance sheet.

2.
(a) Straight-line.
A company could increase earnings by changing from double-declining-balance to straight-line in the early years of an asset’s life. Double-declining-balance depreciation will be higher than straight-line depreciation in earlier years, but lower in later years. Since expenses decrease net income, the higher depreciation expense under double-declining-balance will result in lower reported net income.
(b) Longer service life.
A company could increase earnings by lengthening the estimated service lives of depreciable assets. A longer service life reduces the amount of depreciation in each particular year, resulting in higher reported net income.
(c) Higher residual value.
A company could increase earnings by increasing the estimated residual value of depreciable assets. A larger residual value results in a lower depreciable cost of the asset and therefore less depreciation expense being recorded each year. Lower depreciation expense, in turn, results in higher reported net income.

3. Yes.
Many amounts reported in financial statements are based on estimates by management, and these estimates are a crucial part of the information set used by investors and creditors to make decisions. To the extent that these estimates are materially misstated by management, financial reporting provides misleading information.

4. No.
Even though Wall Street analysts place extensive pressure on companies to meet earnings expectations, management and the company’s auditors have a legal and ethical responsibility to fairly report all estimates, including those for depreciation. A successful defense for misreporting financial performance cannot include pressure from external decision makers.