

EXERCISE 21-1 (15-20 minutes)

- (a) This is a capital lease to Burke since the lease term (5 years) is greater than 75% of the economic life (6 years) of the leased asset. The lease term is $83\frac{1}{3}\%$ ($5 \div 6$) of the asset's economic life.
- (b) Computation of present value of minimum lease payments:
 $\$8,668 \times 4.16986^* = \$36,144$

*Present value of an annuity due of 1 for 5 periods at 10%.

(c) 1/1/04 Leased Machine Under Capital			
	Leases	36,144	
	Lease Liability		36,144
	Lease Liability	8,668	
	Cash		8,668
12/31/04			
	Depreciation Expense	7,229	
	Accumulated Depreciation—		
	Capital Leases		7,229
	(\$36,144 \div 5 = \$7,229)		
	Interest Expense	2,748	
	Interest Payable		2,748
	[($\$36,144 - \$8,668$) \times .10]		
1/1/05			
	Lease Liability	5,920	
	Interest Payable	2,748	
	Cash		8,668

EXERCISE 21-3 (20-30 minutes)

Capitalized amount of the lease:

Yearly payment	\$72,000.00
Executory costs	<u>2,470.51</u>
Minimum annual lease payment	<u>\$69,529.49</u>

Present value of minimum lease payments

$$\$69,529.49 \times 6.32825 = \$440,000.00$$

1/1/05 Leased Building Under Capital

Leases	440,000.00	
Lease Liability		440,000.00

1/1/05 Executory Costs—Property

Taxes	2,470.51	
Lease Liability	69,529.49	
Cash		72,000.00

12/31/05

Depreciation Expense	44,000.00	
Accumulated Depreciation— Capital Leases		44,000.00
(\$440,000 ÷ 10)		

12/31/05

Interest Expense (See Schedule 1)	44,456.46	
Interest Payable		44,456.46

1/1/06 Executory Costs—Property

Taxes	2,470.51	
Interest Payable	44,456.46	
Lease Liability	25,073.03	
Cash		72,000.00

12/31/06

Depreciation Expense	44,000.00	
Accumulated Depreciation— Capital Leases		44,000.00

12/31/06

Interest Expense	41,447.70	
Interest Payable		41,447.70

EXERCISE 21-3 (Continued)

Schedule 1

Kimberly-Clark Corp.
Lease Amortization Schedule
(Lessee)

Date	Annual Payment Less Executory Costs	Interest (12%) on Liability	Reduction of Lease Liability	Lease Liability
1/1/05				\$440,000.00
1/1/05	\$69,529.49	\$ 0	\$69,529.49	370,470.51
1/1/06	69,529.49	44,456.46	25,073.03	345,397.48
1/1/07	69,529.49	41,447.70	28,081.79	317,315.69

EXERCISE 21-4 (20-25 minutes)

Computation of annual payments

Cost (fair market value) of leased asset to lessor	\$160,000.00
Less: Present value of salvage value (residual value in this case) \$16,000 X .82645 (Present value of 1 at 10% for 2 periods)	<u>(13,223.20)</u>
Amount to be recovered through lease payments	<u>\$146,776.80</u>
Two periodic lease payments $\$146,776.80 \div 1.73554^*$	<u>\$84,571.26</u>

*Present value of an ordinary annuity of 1 for 2 periods at 10%

CASTLE LEASING COMPANY (Lessor)
Lease Amortization Schedule

Date	Annual Payment Less Executory Costs	Interest on Lease Receivable	Recovery of Lease Receivable	Lease Receivable
1/1/05				\$160,000.00
12/31/05	\$84,571.26	\$16,000.00	\$68,571.26	91,428.74
12/31/06	84,571.26	<u>9,142.52*</u>	75,428.74	16,000.00
		<u>\$25,142.52</u>		

*Difference of \$.35 due to rounding.

EXERCISE 21-4 (Continued)

(a)	1/1/05	Lease Receivable.....	160,000.00	
		Equipment		160,000.00
	12/31/05	Cash (\$84,571.26 + \$5,000).....	89,571.26	
		Executory Costs		
		Payable		5,000.00
		Lease Receivable.....		68,571.26
		Interest Revenue.....		16,000.00
	12/31/06	Cash	89,571.26	
		Executory Costs		
		Payable		5,000.00
		Lease Receivable.....		75,428.74
		Interest Revenue.....		9,142.52
(b)	12/31/06	Cash	16,000.00	
		Lease Receivable.....		16,000.00

EXERCISE 21-7 (20-25 minutes)

- (a) This is a capital lease to Flynn since the lease term is 75% ($6 \div 8$) of the asset's economic life. In addition, the present value of the minimum lease payments is more than 90% of the fair value of the asset.

This is a capital lease to Bensen since collectibility of the lease payments is reasonably predictable, there are no important uncertainties surrounding the costs yet to be incurred by the lessor, and the lease term is 75% of the asset's economic life. Because the fair value of the equipment (\$150,000) exceeds the lessor's cost (\$120,000), the lease is a sales-type lease.

- (b) Computation of annual rental payment:

$$\frac{\$150,000 - (\$10,000 \times .53464)^*}{4.69590^{**}} = \underline{\$30,804}$$

*Present value of \$1 at 11% for 6 periods.

**Present value of an annuity due at 11% for 6 periods.

(c)	1/1/04	Leased Equipment Under Capital	
		Leases	141,846
		Lease Liability	141,846
		(\$30,804 X 4.60478)***	
		Lease Liability	30,804
		Cash	30,804
		***Present value of an annuity due at 12% for 6 periods.	
	12/31/04	Depreciation Expense	
		Accumulated Depreciation	23,641
		(\$141,846 ÷ 6 years)	
		Interest Expense	13,325
		Interest Payable	13,325
		(\$141,846 – \$30,804) X .12	

EXERCISE 21-7 (Continued)

(d)	1/1/04	Lease Receivable.....	150,000*	
		Cost of Goods Sold	114,654**	
		Sales		144,654*
		Inventory		120,000
		*(\$30,804 X 4.6950) + (\$10,000 X .53464)		
		**\$120,000 – (\$10,000 X .53464)		
		***\$30,804 X 4.6950		
		Cash	30,804	
		Lease Receivable.....		30,804
12/31/04		Interest Receivable	13,112	
		Interest Revenue		13,112
		[(\$150,000 – \$30,804) X .11]		

EXERCISE 21-8 (20-30 minutes)

- (a) The lease agreement has a bargain purchase option and thus meets the criteria to be classified as a capital lease from the viewpoint of the lessee. The present value of the minimum lease payments exceeds 90% of the fair value of the assets.
- (b) The lease agreement has a bargain purchase option. The collectibility of the lease payments is reasonably predictable, and there are no important uncertainties surrounding the costs yet to be incurred by the lessor. The lease, therefore, qualifies as a capital-type lease from the viewpoint of the lessor. Due to the fact that the initial amount of lease receivable (net investment) (which in this case equals the present value of the minimum lease payments, \$91,000) exceeds the lessor’s cost (\$65,000), the lease is a sales-type lease.
- (c) Computation of lease liability:
- | | |
|--------------------|---|
| \$21,227.65 | Annual rental payment |
| <u>X 4.16986</u> | PV of annuity due of 1 for n = 5, i = 10% |
| <u>\$88,516.32</u> | PV of periodic rental payments |

EXERCISE 21-8 (Continued)

\$ 4,000.00	Bargain purchase option
<u>X .62092</u>	PV of 1 for n= 5, i = 10%
<u>\$ 2,483.68</u>	PV of bargain purchase option
\$88,516.32	PV of periodic rental payments
<u>+ 2,483.68</u>	PV of bargain purchase option
<u>\$91,000.00</u>	Lease liability

DENISE RODE COMPANY (Lessee)
Lease Amortization Schedule

Date	Annual Lease Payment Plus BPO	Interest (10%) on Liability	Reduction of Lease Liability	Lease Liability
5/1/04				\$91,000.00
5/1/04	\$ 21,227.65		\$21,227.65	69,772.35
5/1/05	21,227.65	\$ 6,977.24	14,250.41	55,521.94
5/1/06	21,227.65	5,552.19	15,675.46	39,846.48
5/1/07	21,227.65	3,984.65	17,243.00	22,603.48
5/1/08	21,227.65	2,260.35	18,967.30	3,636.18
4/30/09	<u>4,000.00</u>	<u>363.82*</u>	<u>3,636.18</u>	0
	<u>\$110,138.25</u>	<u>\$19,138.25</u>	<u>\$91,000.00</u>	

*Rounding error is 20 cents.

(d)	5/1/04	Leased Equipment Under Capital Leases	91,000.00	
		Lease Liability		91,000.00
		Lease Liability	21,227.65	
		Cash		21,227.65
	12/31/04	Interest Expense	4,651.49	
		Interest Payable		4,651.49
		(\$6,977.24 X 8/12 = \$4,651.49)		

EXERCISE 21-8 (Continued)

	Depreciation Expense.....	6,066.67	
	Accumulated Depreciation		
	—Capital Leases		6,066.67
	($\$91,000.00 \div 10 =$		
	$\$9,100.00$; $\$9,100.00 \times$		
	$8/12 = \$6,066.67$)		
1/1/05	Interest Payable	4,651.49	
	Interest Expense		4,651.49
5/1/05	Interest Expense	6,977.24	
	Lease Liability.....	14,250.41	
	Cash.....		21,227.65
12/31/05	Interest Expense	3,701.46	
	Interest Payable		3,701.46
	($\$5,552.19 \times 8/12 =$		
	$\$3,701.46$)		
12/31/05	Depreciation Expense.....	9,100.00	
	Accumulated Depreciation		
	—Capital Leases		9,100.00
	($\$91,000.00 \div 10 \text{ years} =$		
	$\$9,100.00$)		

(Note to instructor: Because a bargain purchase option was involved, the leased asset is depreciated over its economic life rather than over the lease term.)

EXERCISE 21-9 (20-30 minutes)

Note: The lease agreement has a bargain purchase option. The collectibility of the lease payments is reasonably predictable, and there are no important uncertainties surrounding the costs yet to be incurred by the lessor. The lease, therefore, qualifies as a capital lease from the viewpoint of the lessor.

Due to the fact that the amount of the sale (which in this case equals the present value of the minimum lease payments, \$91,000) exceeds the lessor's cost (\$65,000), the lease is a sales-type lease.

EXERCISE 21-9 (Continued)

The minimum lease payments associated with this lease are the periodic annual rents plus the bargain purchase option. There is no residual value relevant to the lessor's accounting in this lease.

(a) The lease receivable is computed as follows:

\$21,227.65	Annual rental payment
<u>X 4.16986</u>	PV of annuity due of 1 for n = 5, i = 10%
<u>\$88,516.32</u>	PV of periodic rental payments
\$ 4,000.00	Bargain purchase option
<u>X .62092</u>	PV of 1 for n = 5, i = 10%
<u>\$ 2,483.68</u>	PV of bargain purchase option
\$88,516.32	PV of periodic rental payments
<u>+ 2,483.68</u>	PV of bargain purchase option
<u>\$91,000.00</u>	Lease receivable at inception

(b) MOONEY LEASING COMPANY (Lessor)
Lease Amortization Schedule

Date	Annual Lease Payment Plus BPO	Interest (10%) on Lease Receivable	Recovery of Lease Receivable	Lease Receivable
5/1/04				\$91,000.00
5/1/04	\$ 21,227.65		\$21,227.65	69,772.35
5/1/05	21,227.65	\$ 6,977.24	14,250.41	55,521.94
5/1/06	21,227.65	5,552.19	15,675.46	39,846.48
5/1/07	21,227.65	3,984.65	17,243.00	22,603.48
5/1/08	21,227.65	2,260.35	18,967.30	3,636.18
4/30/09	<u>4,000.00</u>	<u>363.82*</u>	<u>3,636.18</u>	0
	<u>\$110,138.25</u>	<u>\$19,138.25</u>	<u>\$91,000.00</u>	

*Rounding error is 20 cents.

EXERCISE 21-9 (Continued)

(c)	5/1/04	Lease Receivable.....	91,000.00	
		Cost of Goods Sold	65,000.00	
		Sales		91,000.00
		Inventory		65,000.00
		Cash	21,227.65	
		Lease Receivable.....		21,227.65
12/31/04		Interest Receivable	4,651.49	
		Interest Revenue		4,651.49
		(\$6,977.24 X 8/12 = \$4,651.49)		
5/1/05		Cash	21,227.65	
		Lease Receivable.....		14,250.41
		Interest Receivable		4,651.49
		Interest Revenue		2,325.75
		(\$6,977.24 — \$4,651.49)		
12/31/05		Interest Receivable	3,701.46	
		Interest Revenue.....		3,701.46
		(\$5,552.19 X 8/12 = \$3,701.46)		
5/1/06		Cash	21,227.65	
		Lease Receivable.....		15,675.46
		Interest Receivable		3,701.46
		Interest Revenue		1,850.73
		(\$5,552.19 – \$3,701.46)		
12/31/06		Interest Receivable	2,656.43	
		Interest Revenue		2,656.43
		(\$3,984.65 X 8/12 = \$2,656.43)		