

Lease Examples

Below are examples of operating and capital leases. When reviewing leases the use the following criteria to determine lease type: If any of these criteria apply the lease is considered a capital lease.

- The lease conveys ownership to the lessee during or at the end of the lease term
- The lessee has an option to purchase the asset at a bargain price at the end of the lease term
- The term of the lease is 75% or more of the useful life of the asset (as defined in DAS or county useful life tables)
- The present value of the minimum lease payments equals or exceeds 90% of the fair value of the leased asset

Operating Lease Example

Agency ABC is leasing a van.

The fair market value of the lease is \$33,900.

The lease is for three (3) years and the useful life is seven (7) years.

The monthly payment is \$578.81 and the maintenance fees are \$50.

The interest rate for the lease is 7.5%.

At the end of the lease the van may be purchased for \$21,500.

Based on the facts above it does not meet any of the capital lease criteria. See the worksheet for details.

Capital Lease Example

Agency DEF is leasing an imaging system.

The imaging system lease has a fair value of \$750,000.

The lease is for three (3) years and the useful life is for three (3) years.

The monthly invoice amount will be for \$24,829.66 which consists of the following:

- Monthly payment of principle and interest is \$23,329.66
- Monthly maintenance agreement fee is \$1,500

The interest rate for the lease is 7.5%.

The Agency can buy the system for \$1.00 at the end of the lease.

The imaging system is a capital lease. Three criteria were met in this example as noted below:

- *the lessee can purchase the asset for a bargain price at the end of the lease*
- *the term of the lease is 75% or more of the asset's useful life*
- *the present value of the minimum lease payments equals or exceeds 90% of asset's fair value*

Operating Lease Example - Van Lease

	<u>FMV</u>	<u>Monthly Pymt</u>	<u>Interest</u>
3 Year Lease	\$ 33,900.00	\$ 578.81	7.5000%
		50.00	Maintenance Fees
	<u>\$ 33,900.00</u>	<u>\$ 528.81</u>	Minimum Lease /
			Loan Pymt

Month #	Loan Payment	Interest	Principal	Balance
				\$ 33,900.00
1	\$ 528.81	\$ 211.88	\$ 316.93	33,583.07
2	528.81	209.89	318.92	33,264.15
3	528.81	207.90	320.91	32,943.24
4	528.81	205.90	322.91	32,620.33
5	528.81	203.88	324.93	32,295.40
6	528.81	201.85	326.96	31,968.44
7	528.81	199.80	329.01	31,639.43
8	528.81	197.75	331.06	31,308.37
9	528.81	195.68	333.13	30,975.24
10	528.81	193.60	335.21	30,640.03
11	528.81	191.50	337.31	30,302.72
12	528.81	189.39	339.42	29,963.30
13	528.81	187.27	341.54	29,621.76
14	528.81	185.14	343.67	29,278.09
15	528.81	182.99	345.82	28,932.27
16	528.81	180.83	347.98	28,584.29
17	528.81	178.65	350.16	28,234.13
18	528.81	176.46	352.35	27,881.78
31	528.81	146.74	382.07	23,095.79
32	528.81	144.35	384.46	22,711.33
33	528.81	141.95	386.86	22,324.47
34	528.81	139.53	389.28	21,935.19
35	528.81	137.09	391.72	21,543.47
36	528.63	134.65	393.98	21,149.49
	<u>\$ 19,036.98</u>	<u>\$ 6,286.47</u>	<u>\$ 12,750.51</u>	

Asset's Fair Market Value:	\$ 33,900.00
	90%
90% of Asset's Fair Market Value	<u>\$ 30,510.00</u>
PV of Minimum Lease payments:	\$17,000.14

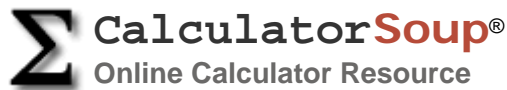
Useful Life - 7 years or 84 months	84
	75%
75% of asset's useful life	<u>63</u>
Lease Term - 3 years or 36 months	<u>36</u>

Capital Lease Example - Imaging System Lease

3 Year Lease	\$	FMV 750,000.00	Monthly Pymt \$ 24,829.66	Interest 7.50%	Depreciation 3 Year Useful Life 36 Months
			<u>1,500.00</u>	Maintenance Fees	
			\$ 23,329.66	Minimum Lease / Loan Pymt	

Month #	Loan Payment	Interest	Principal	Balance	Depreciation Expense	Net Cash Effect
				\$ 750,000.00		
1	\$ 23,329.66	\$ 4,687.50	\$ 18,642.16	731,357.84	\$ 20,833.33	\$ 2,191.17
2	23,329.66	4,570.99	18,758.67	712,599.17	20,833.33	2,074.66
3	23,329.66	4,453.74	18,875.92	693,723.25	20,833.33	1,957.41
4	23,329.66	4,335.77	18,993.89	674,729.36	20,833.33	1,839.44
5	23,329.66	4,217.06	19,112.60	655,616.76	20,833.33	1,720.73
6	23,329.66	4,097.60	19,232.06	636,384.70	20,833.33	1,601.27
7	23,329.66	3,977.40	19,352.26	617,032.44	20,833.33	1,481.07
8	23,329.66	3,856.45	19,473.21	597,559.23	20,833.33	1,360.12
9	23,329.66	3,734.75	19,594.91	577,964.32	20,833.33	1,238.42
10	23,329.66	3,612.28	19,717.38	558,246.94	20,833.33	1,115.95
11	23,329.66	3,489.04	19,840.62	538,406.32	20,833.33	992.71
12	23,329.66	3,365.04	19,964.62	518,441.70	20,833.33	868.71
13	23,329.66	3,240.26	20,089.40	498,352.30	20,833.33	743.93
14	23,329.66	3,114.70	20,214.96	478,137.34	20,833.33	618.37
29	23,329.66	1,134.35	22,195.31	159,300.44	20,833.33	(1,361.98)
30	23,329.66	995.63	22,334.03	136,966.41	20,833.33	(1,500.70)
31	23,329.66	856.04	22,473.62	114,492.79	20,833.33	(1,640.29)
32	23,329.66	715.58	22,614.08	91,878.71	20,833.33	(1,780.75)
33	23,329.66	574.24	22,755.42	69,123.29	20,833.33	(1,922.09)
34	23,329.66	432.02	22,897.64	46,225.65	20,833.33	(2,064.31)
35	23,329.66	288.91	23,040.75	23,184.90	20,833.33	(2,207.42)
36	23,329.81	144.91	23,184.90	(0.00)	20,833.33	(2,351.57)
	<u>\$ 839,867.91</u>	<u>\$ 89,867.91</u>	<u>\$ 750,000.00</u>		<u>\$ 750,000.00</u>	<u>\$ (0.00)</u>

Asset's Fair Market Value:	\$ 750,000.00	Useful Life - 3 years or 36 months	36
	90%		75%
90% of Asset's Fair Market Value	<u>\$ 675,000.00</u>	75% of asset's useful life	<u>27</u>
PV of Minimum Lease payments:	<u>\$ 749,999.88</u>	Lease Term - 3 years or 36 months	<u>36</u>



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[Basic Calculator](#)

Present Value of Annuity Calculator

Annuity Present Value Calculator

Number of Periods (t):

Interest

Rate (R): %
per Period

Compounding (m):
times per Period

Cash Flow (Annuity Payments)

Pmt Amount (PMT): \$

Growth (G): %
per Payment

of Payments (q):
Payments per Period

Payment at (T):
of each Period

Answer:

Present Value (PV) of the Ordinary Annuity

\$ 749,999.88

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http://www.calculatorsoup.com/calculators/financial/present-value-annuity-calculator.php?t=3&ratepercent=7.5&m=12&pmt=23329.66&growth_ratepercent=0&q=12&type=0&action=solve

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Calculator Use

Use this calculator to find the present value of annuities due, ordinary regular annuities, growing annuities and perpetuities.

Period

commonly a period will be a year but it can be any time interval you want as long as all inputs are consistent.

Number of Periods (t)

number of periods or years

Perpetuity

for a perpetual annuity t approaches infinity. Enter p, P, perpetuity or Perpetuity for t

Interest Rate (R)

is the annual nominal interest rate or "stated rate" per period in percent. $r = R/100$, the interest rate in decimal

Compounding (m)

is the number of times compounding occurs per period. If a period is a year then annually=1, quarterly=4, monthly=12, daily = 365, etc.

Continuous Compounding

is when the frequency of compounding (m) is increased up to infinity. Enter c, C, continuous or Continuous for m.

Payment Amount (PMT)

The amount of the annuity payment each period

Growth Rate (G)

If this is a growing annuity, enter the growth rate per period of payments in percentage here. $g = G/100$

Payments per Period (Payment Frequency (q))

Coding for Operational Lease: (3 yrs on a new Van w/ 7 yr. useful life)

Invoice: Month #4	
↑	Principle 322.91
↓	Interest 205.90
	Maint. fee 50.00
	Process fee -
	Monthly Total Due 578.81

↓ ↑ Amortization over time, the principle amount being paid will increase as the interest amount being paid each month will decrease.

528.81 Actual Loan Payment

Coding / Paying Invoice: (same amount each month)

578.81 JFSFA010 - 521092 (charge full amount to respective cost pool or program)

Coding for Capital Lease: Imaging System - 3 yr lease

Invoice: Month #4	
↑	Principle 18,993.89
↓	Interest 4,335.77
	Maint. fee 1,500.00
	Process fee -
	Monthly Total Due 24,829.66

Useful Life (Years) 3
 Fair Market Value 750,000.00
 Monthly Dep. = [FMV / (3x12)] 20,833.33

5,835.77

Coding:

Paying Invoice: (amounts vary slightly each month as principle & interest changes)

5,835.77 JFSFA010 - 521092 (respective cost pool or program)
 18,993.89 JFSFA899 - 539152 (Local - Non-Reimbursable) *

Recording Depreciation: (same amount each month)

20,833.33 JFSFA010 - 521092 (respective cost pool or program)
 (20,833.33) JFSFA899 - 592003 (Local - Non-Reimbursable) *

Net Cash Effect:

\$ 1,839.44

* Variances in principle and depreciation amounts will impact local cash balances. These variances will net at the end of the depreciation process.