

## Chapter Overview (AS 19 Leases)

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## AS 19 - Leases (v. Imp)

### i] Definition of lease

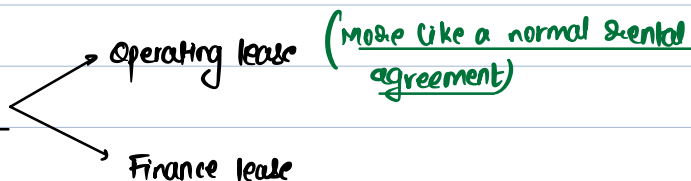
A lease is an agreement whereby the lessor (legal owner) conveys to the lessee the right to use an asset for a period of time in return for a payment or series of payment (lease rentals) (lease term)

Eg: BB Sir (Owner) ↓ Lessor gives studio on rent to AK Sir (tenant) ↓ Lessee for 5 years ↓ lease term @ ₹ 5,00,000 per annum. ↓

- lease rentals / or  
- lease payments / or  
- Minimum lease payments

### Chapter overview

Two types of leases



a] Operating lease (more like a rental agreement) → (Jisne rent pe diya uske liye Income & jisne asset rent pe liya uske liye expense)

### Journal Entries

Lessor (BB Sir) <span style="color: red;">↑ owner</span>	Lessee (AK Sir)
Day ① No entry	Day ① No entry
1st year <u>ClB Alc Dr</u> xx To <u>Lease Rent Income (PIL)</u> xx	1st year <u>Lease Rent Exp (PIL) Dr</u> To <u>ClB Alc.</u>
<span style="color: magenta;">Asset BB Sir ke books mein he hai</span> 4th year → <u>Depn (PIL)</u> xx To <u>PPE</u> xx	

⑥ Finance lease (More like BB sis selling the asset to AK on loan/EMI Basis.  
 Matlab BB sis will not receive full money upfront. He will receive  
 in installment [lease Rentals])

Journal Entries

Lessor (BB sis)	Lessee (AK sis)
<p><u>Day 1</u> Lease Receivable A/c Dr xx            To Asset (Studio) A/c xx</p>	<p><u>Day 1</u> Asset A/c Dr (Studio) xx            To Lease Liability (Payable) xx</p>
<p><u>4</u>end Lease Receivable A/c Dr            To Interest Income A/c</p>	<p><u>4</u>end Interest Exp A/c Dr            To Lease Liability</p>
<p><u>4</u>end CIB A/c Dr A/c            To Lease Receivable A/c.</p>	<p><u>4</u>end Lease Liability A/c Dr.            To CIB</p>
OR	OR
<p><u>4</u>end CIB A/c Dr → lease Rentals            To Int Income (Int)            To Lease Receivable A/c</p>	<p>Int Expense A/c Dr            Lease Liab A/c Dr            To CIB</p>

4end Asset is now in AK sis books in case of Finance lease

Deprn xx  
 To PPE xx

## 2] Scope

This standard applies to all leases other than:

- ① lease agreements to explore or use natural resources such as oil, gas, metals, minerals etc.
- ② licensing agreements for items such as motion picture films, video recordings, plays, manuscripts, patents & copyright
- ③ lease agreement to use Lands.

## 3] Important Definitions

### ① Lease Term

It includes Non cancellable period (+) Renewal period (if reasonably certain to exercise)

Day 1 → Total lease Term

Eg: BB Co (lessor) → AX Co (lessee)

5yrs lease (non cancellable)

(+)

3yrs (option to renew)

I am reasonably certain to exercise the option

→ 5yrs + 3yrs = 8yrs.

I am (not) reasonably certain to exercise the option

→ 5yrs



## ⑥ Lease Payments / Lease Rentals / Minimum Lease Payments

Leasor	Lessee
① Fixed lease Rentals (Eg 1)	① Fixed lease Rentals
② <sup>Eg 2</sup> Guaranteed Residual value (GRV) ↳ GRV given by lessee (Mau) ↳ GRV given by independent 3 <sup>rd</sup> party Eg 3	② Guaranteed Residual value (GRV) ↳ GRV given by lessee (Mau)
③ Renewal option / Purchase option payment ↓ Eg 4      ↓ Eg 5	③ Renewal option / Purchase option payment

### Eg ① Fixed Lease Rentals

BB Sis gave studio on lease to AK Sis for 3 yrs.

Rentals every year were as follows.

Yr lease Rent

1 10L

2 11L

3 13L

} Fixed lease → Iako Amount Jar ① se he pata hai Rentals.

### Eg ② GRV

AK Sis gives Ferrari (Car) on lease to Mau Hd for ₹ 30L p.a. for 3 years.

(Leasor)

(Lessee)

Guarantee for a Residual value → 15L @ the end of 3<sup>rd</sup> year

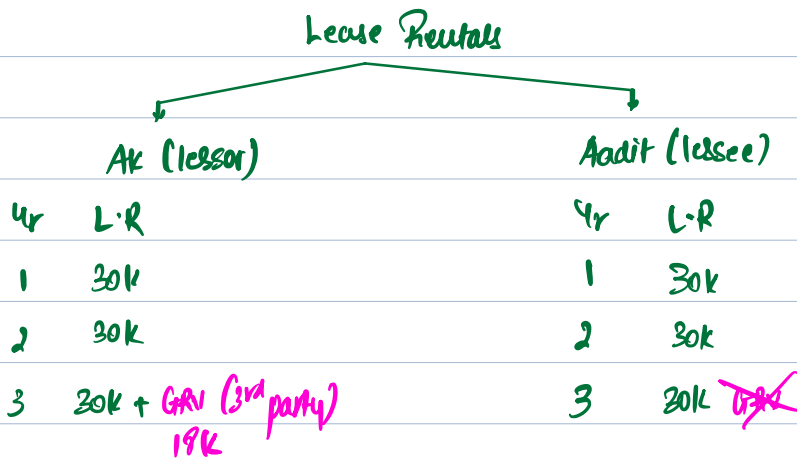
(To ensure proper usage)

Yr	lease Rent
1	30L
2	30L
3	30L + 15L ↳ GRV

Ex: iPhone purchased by Ak from Flipkart (1) → Buy Back offer (After 3yrs Flipkart will Buy Back @ ₹ 18k) iPhone

Ak gave iPhone on lease to Aadi → L-R 4r lease Rental.  
 (lessor) (lessee) 1 30k  
 2 30k  
 3 30k  
 No GRV promised by Aadi (lessee)

Ak has received a GRV But from 3rd party (Flipkart) & not from lessee.



Ex (4) BB Sir gave his studio on lease to Ak for 5yrs @ ₹ 5L p.a.  
 BB Sir also gave an option to renew for 3yrs @ ₹ 4L p.a for the renewal period.  
 It is reasonably certain that renewal option will be exercised.

Calculate L-R for each year.

4r	Lease Rentals
1	5L
2	5L
3	5L
4	5L
5	5L
6	4L
7	4L
8	4L

} It is part of lease Rentals only if it is reasonably certain to renew for 3yrs.

Ex 5 BB SIA gave studio on lease to AK SIA for 5yrs @ £5k.p.a.

BB SIA also gave an option to purchase the studio @ the end of 5yrs @ £18k

AK SIA is reasonably certain to exercise the purchase option

AK SIA is **NOT** reasonably certain to exercise the purchase option

4y	L.R.
1	SL
2	SL
3	SL
4	SL
5	SL + 18k

↓  
Purchase option payment

4y	L.R.
1	SL
2	SL
3	SL
4	SL
5	SL

#### ④ Types of lease

Operating lease

- ① Does not trf the risk & reward of the asset.
- ② like a normal Rental agreement

Finance lease

- ① Transfer the risk & reward of the asset
- ② like a loan agreement.

## ⑤ Indicators of Finance lease

(These are 5 conditions. If **Any 1** is met, then it is a Finance lease)

### ① Ownership

If lease transfers ownership of the asset to the lessee @ the end of lease term.

(eg: BB sis gave studio on rent for 5yrs @ the end of 5yrs ownership of asset will be transferred to AK sis) → **Fin. lease.**

### ② Purchase option:

If lessee has an option to purchase the asset at a price which is expected to be lower than fair value & it is reasonably certain that the option will be exercised.

(eg: BB sis gave studio on lease for 5yrs @ the end of 5th yr AK sis has option to purchase the asset @ 18L (<sup>Fair Value</sup> MKT value of which is 40L). It is reasonably certain that purchase option will be exercised) → **It is a Fin lease.**

### ③ Lease Term

If lease term is for major part (75%) of economic life of the asset.

eg (AK sis gave Ferrari on lease to MSU for 8yrs (Total life of Ferrari is 10yrs).

Lease Term covers 80% of life ( $\frac{8yrs}{10yrs} \times 100$ ) → **It is Fin lease**

eg (BB sis gave studio on lease for 10yrs (Total life of studio is 40yrs)

Lease Term covers 25% of life ( $\frac{10yrs}{40yrs} \times 100$ ) → **It is Not a Fin lease (as per 3<sup>rd</sup> condition)**

### ④ PV of Minimum Lease Payments

90% or more.

At inception of the lease, if present value of MLP substantially covers the fair value of asset, then it is Fin. lease.

Eg ① AK Sia Ferrari → 1 cr. (Fair value)

(Owner  
lessor)

AK Sia gives on lease to <sup>ferrari</sup> Moh Ltd for ₹40L p.a for 3 years.

D-F @ 10% (Given)

yr end	lease Rent	DF @ 10%	PV
1	40L	0.909	36,36,000
2	40L	0.826	33,04,000
3	40L	0.751	30,04,000

PV of MLP 99,44,000 approx.

Fair Value 1,00,00,000

$$\% \text{ of money recovered in Rentals} = \frac{9944000}{1,00,00,000} \times 100 = 99.44\%$$

Eg ② Everything is same as above except lease Rental is 30L p.a for 3yr.

yr end	lease Rent	DF @ 10%	PV
1	30,00,000	0.909	27,27,000
2	30,00,000	0.826	24,78,000
3	30,00,000	0.751	22,53,000

PV of MLP 74,58,000

Fair Value 1,00,00,000

$$\% \text{ of money recovered in Rentals} = \frac{74,58,000}{1,00,00,000} \times 100 = 74.58\%$$

∴ Not a Fin lease

Ex. 3 AK  $\xrightarrow[\text{3 yrs.}]{\text{Ferrari}} \text{M&A 110}$  (Fair value = 1cr)

L.R = 30L p.a.

GRV = 25L

DF @ 10%

Check whether PV of MLP substantially covers Fair value of Asset or not?

yr end	lease Rent	DF @ 10%	PV
1	30,00,000	0.909	2727000
2	30,00,000	0.826	2478000
3	30,00,000	0.751	41,30,500
	+ 25,00,000 (GRV)	PV of MLP	93,35,500
		Fair Value	1,00,00,000

$$\% \text{ of money recovered in rentals} = \frac{93,35,500}{1,00,00,000} \times 100 = 93.35\%$$

$\downarrow$   
 PV of MLP  
 substantially covers  
 Fair value

$\therefore$  It is a Fin. lease.

### ③ Specialised Nature

The leased asset is of a specialised nature such that only lessee can use it without major modifications being made

eg. BB sis  $\xrightarrow[\text{Modifications}]{\text{studio}} \text{AK sis}$

All within my studio.  $\left\{ \begin{array}{l} \bullet \text{ King size Bed} \\ \bullet \text{ Swimming Pool} \\ \bullet \text{ Water Proof fishes} \\ \bullet \text{ Multiplex for movies} \end{array} \right\}$  Because asset is of specialised Nature  $\therefore$  It is a Fin. lease.  
 $\therefore$  (Only useful for lessee)

If none of the above 5 indicators are met, then it is an operating lease.



② Lessee Books

Journal Entries

① Asset Acc Dr            xx  
     TO Lease Liab<sup>y</sup>        xx

} Lower of: PV of MLP → [Lease Rent + GRV]  
                     ②  
                     Fair Value of Asset → [Given in ques]

4/20/20

② Int Exp

    TO Lease Liab<sup>y</sup>

③ Lease Liab<sup>y</sup>

    TO CB

④ Deprn

    TO PPE

} Depreciation over the lease term or useful life  
 whichever is lower.

⑤ Extra Entry

    PIC Acc Dr

    TO Deprn Acc

    TO Int Exp Acc

Eg① Dhruv took an asset on lease from Rahul for 5yrs.  
 (lessee) (lessor)

Assets Fair Value is ₹ 10,00,000.

Lease Rentals are ₹ 250000 p.a. (payable @ the end of each year)

GRV @ the end of lease term promised by lessee is ₹ 50,000.

DF @ 10%.

Calculate lease liability in the Books of Dhruv & also calculate Interest (Finance) charges for each year end. (Assume Fin. lease)

Sol<sup>n</sup>: In the Books of Dhruv Hd (lessee)

Day ① Asset A/c Dr 978550 } WN①  
 To Lease Liability 978550

Yr 1 end Int Exp/Fin. charges A/c Dr 97855  
 To Lease Liab A/c 97855

Yr 2 end Int Exp/Fin. charges A/c Dr 82641  
 To Lease Liab A/c 82641

Yr 1 end Lease Liab A/c Dr 250000  
 TO CB 250000

Yr 1 end Lease Liab A/c Dr 250000  
 TO CB 250000

Yr 1 end Deprn 195710  
 TO PPE 195710  
 [978550]  
 5yrs

Yr 1 end Deprn 195710  
 TO PPE 195710  
 [978550]  
 5yrs

Yr 1 end PL A/c Dr 293565  
 TO Deprn 195710  
 TO Int Exp 97855

Yr 1 end PL A/c Dr 278351  
 TO Deprn 195710  
 TO Int Exp 82641



Q1 Calculation of Lease Liability

Lower of: Fair value = 10,00,000

PV of MLP = 978550



Yr end	Lease Rent	DF @ 10%	PV
1	250000	0.909	227250
2	250000	0.826	206500
3	250000	0.751	187750
4	250000	0.683	170750
5	250000 + 50000 GRV	0.621	186300

PV of MLP 978550 approx

Q2 Calculation of Interest (Finance) charges for each yr end (for & Repayment Table)

Yr end	Opening of lease Liab	Exp. Finance charges @ 10% → same as Disc-Factor	Repayment/ Instalment/ Lease Rent payment	Closing Bal of lease Liab
1	978550	97855	(250000)	826405
2	826405	82641	(250000)	659046
3	659046	65905	(250000)	474951
4	474951	47495	(250000)	272446
5	272446	27245	(250000) only lease Rent	49691

Approx GRV  
(due to rounding off this is not coming to exact 50,000)

Illus 1 In the Books of Lessee

Calculation of lease Liability : lower of Fair value 20,00,000  
 or  
 PV of MLP 18,55,850

Year end	L.R	D.F@15%	PV
1	625000	0.8696	543500
2	625000	0.7561	472563
3	625000	0.6575	410937
4	625000 + 125000 GRV	0.5719	428850
			<u>18,55,850</u>

Day 1 Journal Entry

Asset Acc Dr 18,55,850  
 TO Lease Liab<sup>y</sup> 18,55,850

Yr end Int Exp 2,78,378  
 TO Lease Liab<sup>y</sup> 2,78,378

Yr end Lease Liab 6,25,000  
 TO ClB 6,25,000

Yr end Depn 4,63,963  
 TO PPE 4,63,963  
 (SLM Assume) (18,55,850 / 4 yrs)

can also take 375000 as Res. value (given in ques)

OR 
$$\frac{\text{Cost GRV}}{4 \text{ yrs}} = \frac{18,55,850 - 1,25,000}{4 \text{ yrs}} = 4,32,713$$

P/L 7,42,341  
 TO Depn 4,63,963  
 TO Int Exp 2,78,378

WN Calculation of Interest/Finance charges for each year end. lease Rent

Year end	Opening	Finance charges @ 15%	Repayment	CB
1	1855850	278378	(625000)	1509228
2	1509228	226384	(625000)	11,10,612
3	11,10,612	166592	(625000)	652204
4	652204	97831	(625000)	<u>125035</u> ↓ GRV approx

Illus 10 (LOR)

In the Books of lessee Ltd.

① Value of Machinery

Lower of fair value 7,00,000

OR

PV of MLP 699054

Year end	Lease Rent	D-F @ 15%	PV
1	300000	0.869	260700
2	300000	0.756	226800
3	300000 + 22000 ↓ GRV	0.657	211554
			699054

Day 1 J-E.

Machinery A/c. Dr.	699054
TO lease liab <sup>y</sup>	699054





Sol<sup>n</sup>: Lessor Books

Day ① Lease Receivable A/c Dr 3852100 } @ Net Investment  
TO PPE 3852100 }

$$\begin{aligned} \text{Gross Investment} &= \text{Minimum Lease Payment (+) UGRV} \\ & \text{(without Present value)} \quad \text{Lease Pmt. GRV} \\ &= 51,00,000 \end{aligned}$$

$$\begin{aligned} \text{Net Investment} &= \text{PV of Gross Investment} \\ &= 3852100 \end{aligned}$$

$$\begin{aligned} \text{Unearned Finance Income} &= \text{Gross Investment (-) Net Investment} \\ &= 51,00,000 (-) 3852100 \\ &= 1247900 \end{aligned}$$

↳ upcoming 5 years ka Interest  
↳ This is Not Booked on 1st day  
↳ This is computed for disclosure purpose.

Tread Journal Entries

Lease Receivable 385210  
TO Interest Income 385210

CLB A/c Dr 10,00,000  
TO Lease Receivable 10,00,000

Int Income 385210  
TO P/L 385210

<u>WN ①</u>	Yr end	Lease Rentals	D.F @ 10%	PV
	1	10,00,000	0.909	909000
	2	10,00,000	0.826	826000
	3	10,00,000	0.751	751000
	4	10,00,000	0.683	683000
	5	10,00,000 + 80000 + 20000 <div style="margin-left: 100px;"> <span style="color: red;">↓</span> GRV  <span style="color: red;">↓</span> UGRV </div>	0.621	683100
		<u>₹ 1,00,000</u>		<u>3852100</u>
		↓ Gross Investment		↓ Net Investment

WN ② Calculation of Finance charges (Interest Income) & Installment received.

Yr end	Opn Bal of Lease Rental	Interest Income @ 10% <i>Disc-factor ↑</i>	Repayment (Installment/Lease rent received)	Closing Bal
1	3852100	385210	(10,00,000)	3237310
2	3237310	323731	(10,00,000)	25,61,041
3	25,61,041	256104	(10,00,000)	1817145
4	1817145	181715	(10,00,000)	998860
5	998860	99886	(10,00,000)	98746
		<u>1246646</u> ↓ Interest for 5 years.		<u>98746</u> GRV + UGRV approx.

Illus 2 (lessor) → Fin lease (Unearned Fin. Income was asked)

∴ It is a hint that Accounting in the Books of lessor is asked under Finance Lease.

(₹ in lakhs)

$$1] \text{ Gross Investment} = \text{Minimum lease Payments (+) UGRV} \\ \text{(without PV)}$$

$$= 43 \text{ lakhs}$$

$$2] \text{ Net Investment} = \text{PV of Gross Investment}$$

$$= 28.31 \text{ lakhs}$$

$$3] \text{ Unearned Finance Income} = \text{Gross Invest (-) Net Invest}$$

$$= 14.69 \text{ lakhs}$$

WN ①

Yr end	Lease Rent	D.F @ 15%	PV
1	8	0.8696	6.96
2	8	0.7561	6.05
3	8	0.6575	5.26
4	8	0.5719	4.57
5	8 + 1.6 + 1.4	0.4972	5.47
	$\downarrow$ GRV		
	$\downarrow$ UGRV		
	43		28.31 approx
	$\downarrow$ Gross Invest		$\downarrow$ Net Invest



Day 1 Lease Payable 28.31 } @ Net Invest.  
 To PPE 28.31

Calculation of Finance charges for each yr

Yr end	Opn	Int Income @ 15% <sup>DF</sup>	Repayment	Closing
1	28.31	4.25	(8)	24.56
2	24.56	3.68	(8)	20.24
3	20.24	3.04	(8)	15.28
4	15.28	2.29	(8)	9.57
5	9.57	1.44	(8)	3.01 approx.

GRV + UGRV

\* Special case is lessor Accounting (Fin. lease)

If Annual lease Rent is Not given in the ques?

Q4 (WR)

whenever lease Rentals are missing we assume that we want to recover the Fair value of asset through PV of MLP & PV of UGRV

Fair Value / Cost of Asset = PV of MLP + PV of UGRV

16,99,999.50 = PV of MLP + 100258.5

(133500 x 3<sup>rd</sup> year Disc factor @ 10%)  
(0.751)

16,99,999.50 (-) 100258.5 = PV of MLP

PV of MLP = 1599741

$$i) \text{ Annual lease Rent} = \frac{1599741}{\cancel{3\text{ yrs}}} = \frac{\text{PV of MLP}}{\text{Annuity factor of 3 yrs (10\%)}} = \frac{1599741}{2.486} = 643500.6$$

Extra Part

yr	L.R	(x) D.F(@10%) = PV	L.R (x) D.F = PV
1		0.909	? (x) 2.486 = 1599741
2		0.826	
3		0.751	
		<u>2.486</u>	<u>1599741</u>
		↓ Total of 3 years Discount factor (Pet Name: <u>Annuity factor</u> )	<u>L.R = PV</u> D.F of 3 yrs (Annuity factor) = $\frac{1599741}{2.486}$ = 643500.6

## ii) Unearned Finance Income

$$a) \text{ Gross Investment} = \text{MLPs} + \text{UGRV} = 2064001.8$$

(without PV)

$$b) \text{ Net Investment} = \text{PV of G.I} = 17,00,000.9$$

$$c) \text{ Unearned Finance Income} = \text{G.I} (-) \text{N.I} = 364000.8$$

yr	L.R	D.F@10%	PV
1	643500.6	0.909	584942
2	643500.6	0.826	531531.5
3	643500.6 + 133500	0.751	583527.4
	<u>2064001.8</u>		<u>17,00,000.9</u> → approx
	↓ Gross Invest		↓ Net Invest

## Illus II (LOR)

① L.P.a. ② Check ③ Condition ④ OFI (BI-NE) Steps to solve

Assumption ①

Fair value of Asset = PV of MLP + PV of UGRV

$$10,00,000 = \text{PV of MLP} + 75130$$

$(1,00,000 \times 0.7513)$

$$\begin{aligned} \text{PV of MLP} &= 10,00,000 - 75130 \\ &= 924870 \end{aligned}$$

$$\begin{aligned} \text{Annual Lease Rent} &= \frac{\text{PV of MLP}}{\text{Annuity factor of 3 yrs (10\%)}} = \frac{924870}{2.4868} \\ &= 371911.7 \end{aligned}$$

② Check whether Finance lease or Operating lease

5 conditions (Any 1 is to be met)

① Ownership transferred @ the end of lease term → No

② Purchase option @ the end of lease term → No

③ Lease term covers <sup>(75%)</sup> major part of life =  $\frac{\text{lease term (3 yrs)}}{\text{Life (5 yrs)}} \times 100 = 60\%$

→ No  
If I consider 60% to be major part for this ques.

④ <sup>(90%)</sup> PV of MLP covers substantial Fair value of Asset = **YES** →

$$\left( \text{PV of MLP } 924870, \text{ Fair value} = 10,00,000, \frac{924870}{1000000} \times 100 = 92.48\% \right)$$

⑤ Specialised Nature Asset → No.

**4<sup>th</sup> condition Met ∴ It is a Finance lease**

(iii) Unearned Finance Income

$$\text{Gross Invest} = 12,15,735.1$$

$$\text{Net Invest} = 10,00,000$$

$$\text{Unearned Fin. Income} = 2,15,735.1$$

<u>WN</u>	<u>yr</u>	<u>L.R</u>	<u>D.F @ 10%</u>	<u>PV</u>
	1	371911.7	0.909	
	2	371911.7	0.826	
	3	371911.7 + 100000 UGRV	0.751	
		<u>12,15,735.1</u>		<u>10,00,000</u>

Ques 3 → Q.OTD

- (i) Annual L.R    (ii) Check 5 conditions    (iii) UFI (GI - NI)

Special case 2

Interest Rate is missing

→ will be discussed in detail in FM Subject along with logics.

In this case we will find Internal Rate of Return (IRR). → Interest Rate for lease.

It is a rate where your Cost / Fair of Asset on Day 1 =  $\frac{\text{PV of Future lease Rentals } \tau_i}{\text{PV of UGRV}}$

Eg ① To calculate IRR

Annual lease Rentals = ₹ 1,00,000 @ the end of each year.

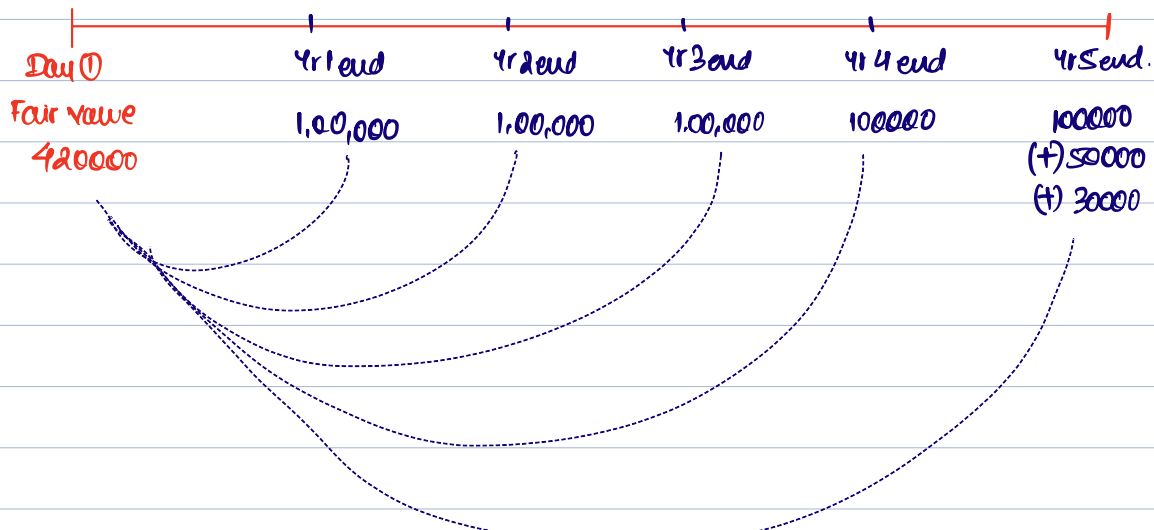
Lease Term = 5 yrs.

GRV = 50,000

UGRV = 30,000

Fair value @ Beginning of lease = 4,20,000

Find Interest rate / Internal rate of return / Interest Rate implicit in lease.



Discount the cash flows of 5 yrs @ such rate that PV should come to Day 0 Fair Value i.e. 4,20,000

Now we will start trial & error

Assume DF @ 10%	yr	Lease Rent	DF @ 10%	PV
	1	100,000	0.909	90,900
	2	100,000	0.826	82,600
	3	100,000	0.751	75,100
	4	100,000	0.683	68,300
	5	100,000 + 50,000 + 30,000 (GRV) (UGRV)	0.621	1,11,780
				<u>4,28,680</u>

4,20,000 nhi aaya 😞

Assume DF@ 12%	yr	Lease Rent	DF@ 12%	PV
	1	100000	0.893	89300
	2	100000	0.797	79700
	3	100000	0.712	71200
	4	100000	0.636	63600
	5	100000 + 50000 + 30000 (GRV) (UGRV)	0.567	102060
				<u>405860</u>

420000 wali aaya 😞

By using interpolation =  $10\% + \frac{428680 - 420000}{428680 - 405860} \times (12\% - 10\%)$   
 ek PV 420000 se zyada aaya  
 ek PV 420000 se kam aaya

$$= 10\% + \frac{8680}{22820} \times 2\%$$

$$= 10\% (+) 0.380 \times 2\%$$

$$= 10\% (+) 0.76$$

$$= 10.76\% \text{ IRR. approx}$$

1st divide  
 2nd multiply 0.380 by 2 (Don't press %)  
 3rd then add 10% (Don't press %)  
 = 10.76%

Eg 2 Annual lease rentals 25000

Lease Term = 5 yrs.

GRV 12500

UGRV 7500

Fair value 1,00,000

Compute IRR?

Sol<sup>n</sup>: Discount all Rentals, GRV & UGRV such that its PV should come to 1,00,000

Total & Errors

Assume D.F @ 12%

Yr	L-R	D.F @ 12%	PV
1	25000	0.893	
2	25000	0.797	
3	25000	0.712	
4	25000	0.636	
5	25000 + 12500 + 7500	0.567	
			PV <u>101465</u> → Nah! aaya 100000 😞

D.F @ 14%

Yr	L-R	D.F @ 14%	PV
1	25000	0.877	
2	25000	0.769	
3	25000	0.675	
4	25000	0.592	
5	25000 + 12500 + 7500	0.519	
			PV <u>96180 approx</u> → Nah! aaya 100000 😞

By using interpolation =  $12\% + \frac{101465 (-) 100000}{101465 (-) 96180} \times (14\% - 12\%)$

one PV should be more than 1L

one PV → less than 1L

=  $12\% + 0.297 \times 2\%$   
 =  $12\% + 0.554$

10% →

3 12.768%

14% →

IRR = 12.55% approx

### Solved Example 1

Discount lease Rent, GRV & JGRV @ such rate that present value should come to 2,00,000  
(Fair Value)

Assume 10%

Yr	L.R	D.F @ 10%	PV
1	50000		
2	50000		
3	50000		
4	50000		
5	50000 + 25000 + 15000		

PV = 214340 → nahi aaya 200000 😞

Assume 12%	Yr	L.R	D.F @ 12%	PV
	1	50000	0.893	
	2	50000	0.797	
	3	50000	0.712	
	4	50000	0.636	
	5	50000 + 25000 + 15000	0.567	

PV = 202780 → nahi aaya 200000 😞

Interpolation nahi chalega → Kyu? ek 2L se upar } yaha dono 2L se  
 & ek 2L se niche } upar hai

Assume 14%	Yr	L.R	D.F @ 14%	PV
	1	50000	0.877	
	2	50000	0.769	
	3	50000	0.675	
	4	50000	0.592	
	5	50000 + 25000 + 15000	0.519	

PV = 192360



10% → 21340 → Ignore

12% - 202780 ✓

14% - 192360 ✓

$$\begin{aligned} \text{By using interpolation} &= 12\% + \frac{202780 - 200000}{202780 - 192360} \times (14\% - 12\%) \\ &= 12\% + (0.267 \times 2\%) \\ &= 12\% + 0.533 \\ &= 12.53\% \text{ approx} \end{aligned}$$

### 7. Accounting for operating lease

Normal Rental agreement

→ lessee Books

→ lessor Books

<u>lessor Books</u>	<u>lessee Books</u>
Day ① No entry	Day ① No entry
<u>4rend</u> ClB Acc DR <b>lease Equilisation (BIF)</b> TO Least Rent Income (PLI) <b>TO lease Equilisation (BIF)</b>	<u>4rend</u> lease Rent Exp (PLI) <b>lease Equilisation (BIF)</b> TO ClB <b>TO lease Equilisation (BIF)</b>
[AS 19 suggests to Book lease rent on SLM Basis unless any other Basis is more appropriate]	[ same ]
<u>4rend</u> Deprn (PLI) TO PPE	<u>4rend</u> No Deprn.

Eg: AK sis took studio on lease from BB sis for 5 yrs. It is an operating lease.  
(lessee) (lessor)

Lease Rent	yr	L.R.
	1	100000
	2	110000
	3	120000
	4	130000
	5	140000
		<u>600000</u>

Avg Rent p.a. =  $\frac{600000}{5} = 120000$  p.a.  
(SLM Basis) Sys

In the Books of BB sis (lessor)

4r 1end C/B Acc Dr 1,00,000

Lease Equalisation <sup>AC/PA</sup> 20,000

TO Lease Rent 120000

Current Asset (B/S)

4r 2end C/B Acc Dr 110000

Lease Equalisation <sup>Dr</sup> 10000

TO Lease Rent (P/L) 120000

4r 3end C/B Acc Dr 120000

TO Lease Rent (P/L) 120000

4r 4end CIB Acc DS 130000  
TO Lease Rent (PIU) 120000  
TO Lease Equilisation 10000

4r 5end CIB Acc DS 140000  
TO Lease Rent (PIU) 120000  
TO Lease Equilisation 20000

Lessee Books (AK Sis) Avg Rent Exp 1.2L p.a.

4r 1end Lease Rent Exp (PIU) 120000  
TO CIB 100000  
TO Lease Equilisation 20000 → Current Cost

4r 2end Lease Rent Exp (PIU) 120000  
TO CIB 110000  
TO Lease Equilisation 10000

4r 3end Lease Rent Exp (PIU) 120000  
TO CIB 120000

4r 4end Lease Rent Exp (PIU) 120000  
Lease Equilisation DS. 10000  
TO CIB 130000

4r Saud

Lease Rent Exp (P/L) 120000

Lease Equalisation Cr. 20000

TO CB

140000

### \* Special case in operating lease

Sometimes we have to Book Lease Rent not in the ratio of SLM But in the ratio of output that is expected to be derived from leased asset.

Eg: Suppose a machine is taken on lease by AK Hd (lessee) for 3yrs (Op. lease).

The output estimated from the machine is 10000 units in Year 1, 20000 units in Year 2, 30000 units in Year 3. The annual agreed lease Rentals is ₹ 40,000 per annum.

Calculate lease Rent Exp each yr & Pass J.E.

Soln: Total lease Rent for 3yrs =  $40000 \times 3\text{yrs} = 120000$

~~SLM~~

Book in ratio of output

	120000		
	↓	↓	↓
	Yr 1	Yr 2	Yr 3
output	10000 units	20000 units	30000 units
L.R to be Booked in P/L	20000	40000	60000
	$(120000 \times \frac{10000}{60000})$	$(120000 \times \frac{20000}{60000})$	$(120000 \times \frac{30000}{60000})$

### J-7 (In two Books of lessee)

Year 1 Lease Rent Exp (PL) 20000

Lease Equalisation A/c 20000

To CIB 40000

Year 2 Lease Rent Exp (PL) 40000

To CIB 40000

Year 3 Lease Rent Exp (PL) 60000

To CIB 40000

To Lease Equalisation 20000

} Hint: lessor Books  
Opposite Entries

### Illus 9 LDR

Op lease (3yr) life of Asset (5yr). Accounting in the Books of lessor.

#### (a) Annual Lease Rent

Cost of Machine 150000

(+) Profit margin (30%) 45000

195000

The life of Asset is 5yr But we are giving on lease only for 3yrs. ∴ Proportionate Rent will be recovered. Output of each year is also given ∴ we will use the output to calculate Annual Lease Rentals.

4r Output

1 40000

2 50000

3 60000

4 80000

5 70000

200000 unit

} lease Period.

$$\begin{aligned} \text{Total lease Rent} &= 195000 \times \frac{\text{output of 3yrs}}{\text{Total output}} \\ &= 195000 \times \frac{150000 \text{ units}}{300000 \text{ units}} \\ &= 97500 \end{aligned}$$

$$\text{Annual lease Rent (Equal)} = \frac{97500}{3\text{yrs}} = \boxed{32500} \rightarrow \text{Itna har saal paisa aayega.}$$

⑤ Lease Rent Income to be Booked each yr (~~Sum~~ Ratio of output)

$$\begin{aligned} \text{Total lease Rent} &= 32500 \times 3\text{yrs} \\ &= 97500 \end{aligned}$$

	Yr 1	Yr 2	Yr 3
output	40000 units	50000 units	60000 units
lease Rent ₹	26000	32500	39000
Income (Trf to P/L)	$(97500 \times \frac{40000}{150000})$	$(97500 \times \frac{50000}{150000})$	$(97500 \times \frac{60000}{150000})$

Extra Journal Entries (lessor) → Not asked

Year 1	Year 2	Year 3
ClB Acc Dr. 32500 TO lease Rent Income 26000 TO lease Equilisation (6500)	ClB Acc Dr. 32500 TO lease Rent (P/L) 32500	ClB Acc Dr. 32500 lease Equilisation (6500) TO lease Rent (P/L) 39000

⑥ Depreciation for 3yrs

Depreciation is always charged on the cost of machine (i.e. ₹ 150000) over useful life i.e. 5yrs. By lessor. It should be allocated in ratio of output.

Yr	Deprn	
1	20000	$(150000 \times \frac{40000 \text{ units}}{300000 \text{ units}})$
2	25000	$(150000 \times \frac{50000}{300000})$
3	30000	$(150000 \times \frac{60000}{300000})$
4	40000	$(150000 \times \frac{80000}{300000})$
5	35000	$(150000 \times \frac{70000}{300000})$

Extra

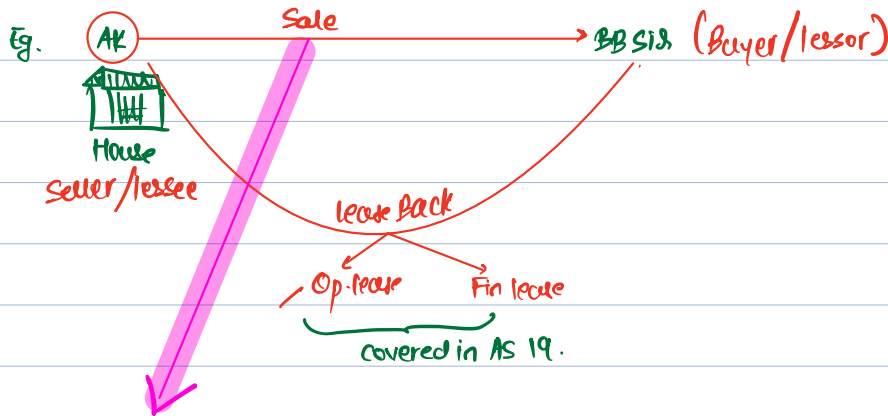
J-E (Extra)

Yr 1 Deprn 20000

∅ PPE (Machine) 20000

WR

### 8. Sale & lease Back



Treatment of Profit/Loss on this sale Transaction is also discussed in AS 19.

#### 1] Sale Done & Lease back results in Finance lease

Profit/Loss on Sale → It is to be amortised over the lease term in the proportion of Deprn.

Jump

Sale Done & leaseback results in Operating lease

How to treat Profit/Loss on Sale

[BV/CA/WDV] ①

Selling Price ②

Fair Value ③

Case ① Sale Price = Fair Value	Case ② Sale Price is less than Fair Value (Sp < Fv)	Case ③ Sale Price is more than Fair Value (Sp > Fv)
Profit/loss on sale can be recognised immediately	Profit/loss on sale can be recognised immediately However, if there is loss & such loss is compensated by future lease payments @ Below Market Rate, then such loss should be deferred & booked in proportion of future lease payments.	<ul style="list-style-type: none"> <li>Profit/loss upto Fair Value can be Booked immediately</li> <li>Excess Selling Price over Fair Value should be deferred &amp; Booked over the period for which asset is expected to be used.</li> </ul>

Hint/Shortcut:

$F.V (-) B.V / WDV =$  +ve (-ve)  
 (Profit) (loss)  
 Book immediately

$S.P (-) F.V =$  +ve (-ve)  
 (Profit) (loss)  
 ↳ Defer  
 ↳ cheating

In case 1 & 2 Compare S.P with BV to calculate Profit

written down value ↓ Book value ↓ Carrying Amt.  
 Eg: Asset → WDV / BV / CA = 100

i) S.P 120, F.V = 120

Ans: Case ① F.V = S.P, Profit = S.P - B.V = 20 → Book immediately

ii) S.P. 120, F.V = 130

Ans: Case ② SP < FV, Profit S.P - B.V = 20 → Book immediately



iii) S.P. 90, FV = 110

Ans: Case ②  $SP < FV$ , Profit  $S.P (-) B.V = (10)$  loss  $\rightarrow$  Book immediately  
 $90 (-) 100$  However, upar wala gyan

iv) S.P 150, FV = 130

Ans: Case ③  $FV (-) WDV = 30 \rightarrow$  Profit Book immediately  
 $130 (-) 100$  Total Profit 50

Cheating  $\rightarrow$   $S.P (-) FV = 20$  Profit  $\rightarrow$  Defer.  
 $150 (-) 130$  Book in future over lease term of Asset.

II (ul 3 CEDR)

(i) Case ①  $S.P (-) B.V (WDV) = 50 \text{ lakh } (-) 40 \text{ lakh}$   
( $FV = SP$ )  $= 10 \text{ lakh profit, Book immediately}$

(ii) Case ②  $S.P (-) B.V (WDV) = 50 \text{ lakh } (-) 40 \text{ lakh}$   
( $S.P < FV$ )  $= 10 \text{ lakh profit} \rightarrow$  Book immediately

(iii) Case ③  $S.P (-) B.V (WDV) = 38 \text{ lakh } (-) 40 \text{ lakh}$   
( $SP < FV$ )  $= 2 \text{ lakh loss} \rightarrow$  Book immediate  
 $\rightarrow$  However if loss is compensated by Below market future lease payments, then defer & amortise.

(iv) Case ④  $FV (-) WDV = 40 (-) 40 = 0 \rightarrow$  Book immediately  
( $SP > FV$ )  $S.P (-) FV = 50 (-) 40 = 10$  Profit (Defer over the lease period)

(v) Case 3  $FV(-) BV (W.D.V) \rightarrow 40(-)40 = 6 \text{ lakhs Profit (Book immediately)}$   
 $SP > FV \rightarrow SP(-) FV \rightarrow 50(-)46 = 4 \text{ lakhs Profit (Defer over the lease period)}$   
*checking*

<sup>4/11/21</sup>  
 (vi) Case 3  $FV(-) BV \rightarrow 35(-)40 = (5) \text{ loss Book immediately}$   
 $SP > FV \rightarrow SP(-) FV \rightarrow 39(-)35 = 4 \text{ Profit (Defer over the lease period)}$

### 9. Other Miscellaneous Points

#### (a) Contingent Rent

If lease rent is based on future sales, future profits etc, such rentals will be booked in P/L as & when received/paid.

#### (b) Initial Direct Cost

Cost which are incurred for entering into lease. Generally they are incurred by lessor is most of the cases.

Accounting treatment → If incurred by lessor → */all other cases* Generally taf to P/L.  
 → If incurred by lessee → Capitalise to the cost of Asset under Finance lease.

### Extra Part

(c) Normally lease Rentals are paid @ the end of the year. → IF Rentals are paid @ the Beginning of the year.

(eg. L.R = 1L L.T = 3yrs D.F @ 10%)

Yr	Lease Rent	D.F @ 10%	PV
1	100000	0.909	
2	100000	0.826	
3	100000	0.751	

Yr	Lease Rent	D.F @ 10%	PV
1	100000	<del>0.909</del> 1	
2	100000	0.909	
3	100000	0.826	