Lease Versus Buy: Present Cost After Tax

Present cost of buying an asset (with depreciation tax savings and resale value) against leasing it, after tax, and the lease payment at which both cost the same.

Method: After-tax present cost comparison of leasing and buying

Input parameters

Unit system: SI

Parameter	Value	Unit
Purchase price	1,000,000	
Period of use (years)	5.0000	
Resale value at the end	150,000	
Lease payment per year (end of year)	240,000	
Tax rate	25.000	%
After-tax discount rate	8.0000	%

Calculated results

Parameter	Value	Unit
Present cost of buying	728,222	
Present cost of leasing	718,688	
Advantage of leasing (negative = buying is cheaper)	9,534.5	
Break-even lease payment per year	243,184	

Notes for this case

• Buying costs the price now, less the tax saved on straight-line depreciation each year and the resale value at the end, all discounted. Leasing costs the lease payments less the tax saved on them. Both are discounted at the after-tax cost of borrowing, because a lease is a form of debt. Maintenance and insurance are left out on the assumption that they are the same either way; add them where the lease includes them.

Formula and method

$$PC_{buy} = P - t\,\frac{P-S}{n}\sum_{k=1}^{n}(1+r)^{-k} - \frac{S}{(1+r)^{n}}, \quad PC_{lease} = L(1-t)\sum_{k=1}^{n}(1+r)^{-k}$$

Variables

P	Purchase price	-
n	Period of use (years)	-
S	Resale value at the end	-
L	Lease payment per year (end of year)	-
t	Tax rate	-
r	After-tax discount rate	-
PC_{buy}	Present cost of buying	-
PC_{lease}	Present cost of leasing	-
$PC_{buy} - PC_{lease}$	Advantage of leasing (negative = buying is cheaper)	-
L^{*}	Break-even lease payment per year	-

Method and standards

Lease versus buy.

Assumptions and limits

- Payments at year end; straight-line depreciation; constant tax rate.

References

After-tax present cost comparison of leasing and buying

Report details

Report reference	FCC-GB9T-T728 (the same inputs always give the same reference)
Generated	23 November 2026, 17:51 UTC
Calculator	Lease Versus Buy: Present Cost After Tax
Method last reviewed	17 November 2026
Software release	FireCAD Calc, release of 22 November 2026
Release checks	3 reference cases of this calculator, computed independently, are checked on every release

Results are for engineering estimation. Verify critical designs against the referenced standards and your own data.

This calculator online

https://calc.firecad.com/general/economics/lease-versus-buy

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.