Angle Unit Converter (degrees, radians, minutes, gradians)

Convert an angle between radians, degrees, arcminutes, arcseconds, gradians (gons) and revolutions, as used in surveying, machining and trigonometry.

Method: Unit definitions per NIST SP 811 and the SI Brochure (exact where defined)

Input parameters

Unit system: SI

Parameter	Value	Unit
Angle (choose its unit)	1.0000	rad

Calculated results

Parameter	Value	Unit
radian	1.0000	rad
degree	57.296	°
arcminute	3,437.7	′
arcsecond	206,265	″
gradian (gon)	63.662	gon
revolution	0.15915	rev

Notes for this case

- In degrees, minutes and seconds: 57° 17′ 44.806″. The minute and second outputs above are totals, not components.
- A full turn is 2π rad = 360° = 400 gon.

Formula and method

$$x_{\text{unit}} = \frac{x_{SI}}{f_{\text{unit}}}$$

Variables

x	Angle (choose its unit)	rad

Method and standards

Each unit's factor to the SI unit is held once in the unit registry.

Assumptions and limits

- Exact factors where the definition is exact.
- The arcminute and arcsecond outputs are totals; the note gives the angle as degrees, minutes and seconds.

References

- Unit definitions per NIST SP 811 and the SI Brochure (exact where defined)

Report details

Report reference	FCC-PBER-HDJT (the same inputs always give the same reference)
Generated	17 November 2026, 19:46 UTC
Calculator	Angle Unit Converter (degrees, radians, minutes, gradians)
Method last reviewed	12 November 2026
Software release	FireCAD Calc, release of 17 November 2026
Release checks	2 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/unit-conversions/angle-unit-converter

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.