Weighted Average and Simple Average

Weighted average of up to six values with their weights (for example blended fuel GCV or average price), with the simple average and the total weight.

Method: Weighted mean Σwx/Σw

Input parameters

Unit system: SI

Parameter	Value	Unit
Value 1	3,800.0	
Weight 1	600.00	
Value 2	4,200.0	
Weight 2	300.00	
Value 3	5,000.0	
Weight 3	100.00	
Value 4	0	
Weight 4	0	
Value 5	0	
Weight 5	0	
Value 6	0	
Weight 6	0	

Calculated results

Parameter	Value	Unit
Weighted average	4,040.0	
Simple average of the values with weight	4,333.3	
Total weight	1,000.0	

Notes for this case

- Items with zero weight are ignored.

Formula and method

$$\bar{x}_w = \frac{\sum w_i x_i}{\sum w_i}$$

Variables

x_1	Value 1	-
w_1	Weight 1	-
x_2	Value 2	-
w_2	Weight 2	-
x_3	Value 3	-
w_3	Weight 3	-
x_4	Value 4	-
w_4	Weight 4	-
x_5	Value 5	-
w_5	Weight 5	-

x_6	Value 6	-
w_6	Weight 6	-
$\bar{x}_w$	Weighted average	-
$\overline{x}$	Simple average of the values with weight	-
$\sum w$	Total weight	-

Method and standards

Weighted mean.

Assumptions and limits

- Additive property.

References

• Weighted mean Σwx/Σw

Report details

Report reference	FCC-NYGD-AYT6 (the same inputs always give the same reference)
Generated	17 November 2026, 19:44 UTC
Calculator	Weighted Average and Simple Average
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/geometry/weighted-average

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.