

Converting mm to m, and m to mm

Sometimes you have to do calculations using quantities in both mm and m. In order to do a calculation you need to convert all the measurements to the same units. Your roofing calculations workbook usually converts all measurements to metres (because you're generally working with larger measurements and it's easier to think of a roof as being 20m long than 20 000 mm).

For more explanation and practice on multiplying and dividing by 1000 go to:

<http://www.bbc.co.uk/skillswise/numbers/wholenumbers/multiplication/multiply10and100/>

Remember $1000\text{mm} = 1\text{ m}$

Check out these tables. You'll see the pattern.

To convert millimetres (mm) to metres (m), divide the number in millimetres by 1000.

Millimetres (mm)	÷ 1000	Metres(m)
1000	÷ 1000	1
4744	÷ 1000	4.744
5000	÷ 1000	5
10 000	÷ 1000	10
500	÷ 1000	0.5
250	÷ 1000	0.25
100	÷ 1000	0.1
50	÷ 1000	0.05
30	÷ 1000	0.03
25	÷ 1000	0.025
10	÷ 1000	0.01
1	÷ 1000	0.001

HINT: When dividing a number by 1000 move the decimal point 3 places to the LEFT, making your original number 3 times smaller.

Eg $800.0\text{ mm} \div 1000$, move the decimal point 3 places to the left = $.8\text{ m}$

To convert metres (m) to millimetres (mm), multiply the number in metres by 1000.

Metres(m)	x 1000	Millimetres (mm)
1	x 1000	1000
4.744	x 1000	4744
5	x 1000	5000
10	x 1000	10 000
0.5	x 1000	500
0.25	x 1000	250
0.1	x 1000	100
0.05	x 1000	50
0.03	x 1000	30
0.025	x 1000	25
0.01	x 1000	10
0.001	x 1000	1

HINT: When multiplying a number by 1000 move the decimal point 3 places to the RIGHT, making your original number 3 times larger.

Eg $0.800\text{m} \times 1000$, move the decimal point 3 places to the right= 800.0 mm