Fraction to decimal chart (inch fractions to decimal and mm)

1/8 inch is 0.1250 in (3.175 mm), 1/4 is 0.2500, 1/2 is 0.5000 and 3/4 is 0.7500. The chart lists all 64 sixty-fourths of an inch with the decimal to four places and millimeters to three, rounded from 1 in = 25.4 mm exactly, so 1/16 in is 1.588 mm, not 1.587. For any other number, use the decimal to fraction calculator.

Inch fractions from 1/64 to 1 inch in lowest terms, in 64ths, as decimal inches (4 places) and millimeters (3 places); bold rows are the 1/16 marks of a ruler

FRACTION, IN	64THS	DECIMAL, IN	MM
1/64	1/64	0.0156	0.397
1/32	2/64	0.0313	0.794
3/64	3/64	0.0469	1.191
1/16	4/64	0.0625	1.588
5/64	5/64	0.0781	1.984
3/32	6/64	0.0938	2.381
7/64	7/64	0.1094	2.778
1/8	8/64	0.1250	3.175
9/64	9/64	0.1406	3.572
5/32	10/64	0.1563	3.969
11/64	11/64	0.1719	4.366
3/16	12/64	0.1875	4.763
13/64	13/64	0.2031	5.159
7/32	14/64	0.2188	5.556
15/64	15/64	0.2344	5.953

FRACTION, IN	64THS	DECIMAL, IN	MM
1/4	16/64	0.2500	6.350
17/64	17/64	0.2656	6.747
9/32	18/64	0.2813	7.144
19/64	19/64	0.2969	7.541
5/16	20/64	0.3125	7.938
21/64	21/64	0.3281	8.334
11/32	22/64	0.3438	8.731
23/64	23/64	0.3594	9.128
3/8	24/64	0.3750	9.525
25/64	25/64	0.3906	9.922
13/32	26/64	0.4063	10.319
27/64	27/64	0.4219	10.716
7/16	28/64	0.4375	11.113
29/64	29/64	0.4531	11.509
15/32	30/64	0.4688	11.906
31/64	31/64	0.4844	12.303
1/2	32/64	0.5000	12.700
33/64	33/64	0.5156	13.097
17/32	34/64	0.5313	13.494
35/64	35/64	0.5469	13.891
9/16	36/64	0.5625	14.288
37/64	37/64	0.5781	14.684
19/32	38/64	0.5938	15.081
39/64	39/64	0.6094	15.478
5/8	40/64	0.6250	15.875
41/64	41/64	0.6406	16.272
21/32	42/64	0.6563	16.669

FRACTION, IN	64THS	DECIMAL, IN	MM
43/64	43/64	0.6719	17.066
11/16	44/64	0.6875	17.463
45/64	45/64	0.7031	17.859
23/32	46/64	0.7188	18.256
47/64	47/64	0.7344	18.653
3/4	48/64	0.7500	19.050
49/64	49/64	0.7656	19.447
25/32	50/64	0.7813	19.844
51/64	51/64	0.7969	20.241
13/16	52/64	0.8125	20.638
53/64	53/64	0.8281	21.034
27/32	54/64	0.8438	21.431
55/64	55/64	0.8594	21.828
7/8	56/64	0.8750	22.225
57/64	57/64	0.8906	22.622
29/32	58/64	0.9063	23.019
59/64	59/64	0.9219	23.416
15/16	60/64	0.9375	23.813
61/64	61/64	0.9531	24.209
31/32	62/64	0.9688	24.606
63/64	63/64	0.9844	25.003
1	64/64	1.0000	25.400

Decimal to fraction chart

Read the same chart from the decimal column: find the decimal nearest to yours and take the fraction on its row. 0.3 inch falls between 0.2969 (19/64) and 0.3125 (5/16); on a tape that reads in sixteenths it is 5/16, 0.0125 in longer.

How to use the chart

The same sizes turn up in two forms: drill and bit sizes in fractions, caliper and drawing sizes in decimals. Fractions run down the chart in order, so the decimal column also runs in order and a decimal finds its fraction by size. The millimeter column turns a fractional size into metric for a metric drill or rule.

What is 1/8 as a decimal?

1/8 inch is 0.1250 in, or 3.175 mm.

What is 3/4 in decimal?

3/4 is 0.7500; 1/4 is 0.2500. In millimeters, 3/4 inch is 19.050 mm.

What is 7/8 as a decimal?

7/8 is 0.8750, or 22.225 mm.

What is 1 1/8 in decimal form?

1 1/8 is 1.1250: the whole number stays, and 1/8 adds 0.1250.

How do you convert a fraction to a decimal?

Divide the top number by the bottom: 5/16 = 5 ÷ 16 = 0.3125. For a mixed number, add the whole part: 2 5/16 = 2.3125.

Calculated with standard formulas; no reference table is involved.

Methodology. Inch and millimeter values follow from 1 in = 25.4 mm exactly.