Inches to mm chart (and mm to inches)

1 inch is exactly 25.4 mm, so 1/2 inch is 12.700 mm and 12 inches 304.8 mm. Going back, divide millimeters by 25.4: 10 mm is 0.3937 in, nearest 1/16 inch 3/8. The second chart gives every millimeter's nearest 1/16, 1/32 and 1/64 inch and how far off it is. For any other size, use the decimal to fraction calculator.

Inches to mm chart

Inches to millimeters: every 1/16 inch to 2 inches, then every 1/4 inch to 12 inches; millimeters to three places from 25.4 mm exactly

INCHES	DECIMAL, IN	MM
1/16"	0.0625	1.588
1/8"	0.1250	3.175
3/16"	0.1875	4.763
1/4"	0.2500	6.350
5/16"	0.3125	7.938
3/8"	0.3750	9.525
7/16"	0.4375	11.113
1/2"	0.5000	12.700
9/16"	0.5625	14.288
5/8"	0.6250	15.875
11/16"	0.6875	17.463
3/4"	0.7500	19.050
13/16"	0.8125	20.638
7/8"	0.8750	22.225

INCHES	DECIMAL, IN	MM
15/16"	0.9375	23.813
1"	1.0000	25.400
1 1/16"	1.0625	26.988
1 1/8"	1.1250	28.575
1 3/16"	1.1875	30.163
1 1/4"	1.2500	31.750
1 5/16"	1.3125	33.338
1 3/8"	1.3750	34.925
1 7/16"	1.4375	36.513
1 1/2"	1.5000	38.100
1 9/16"	1.5625	39.688
1 5/8"	1.6250	41.275
1 11/16"	1.6875	42.863
1 3/4"	1.7500	44.450
1 13/16"	1.8125	46.038
1 7/8"	1.8750	47.625
1 15/16"	1.9375	49.213
2"	2.0000	50.800
2 1/4"	2.2500	57.150
2 1/2"	2.5000	63.500
2 3/4"	2.7500	69.850
3"	3.0000	76.200
3 1/4"	3.2500	82.550
3 1/2"	3.5000	88.900
3 3/4"	3.7500	95.250
4"	4.0000	101.600
4 1/4"	4.2500	107.950

INCHES	DECIMAL, IN	MM
4 1/2"	4.5000	114.300
4 3/4"	4.7500	120.650
5"	5.0000	127.000
5 1/4"	5.2500	133.350
5 1/2"	5.5000	139.700
5 3/4"	5.7500	146.050
6"	6.0000	152.400
6 1/4"	6.2500	158.750
6 1/2"	6.5000	165.100
6 3/4"	6.7500	171.450
7"	7.0000	177.800
7 1/4"	7.2500	184.150
7 1/2"	7.5000	190.500
7 3/4"	7.7500	196.850
8"	8.0000	203.200
8 1/4"	8.2500	209.550
8 1/2"	8.5000	215.900
8 3/4"	8.7500	222.250
9"	9.0000	228.600
9 1/4"	9.2500	234.950
9 1/2"	9.5000	241.300
9 3/4"	9.7500	247.650
10"	10.0000	254.000
10 1/4"	10.2500	260.350
10 1/2"	10.5000	266.700
10 3/4"	10.7500	273.050
11"	11.0000	279.400

INCHES	DECIMAL, IN	MM
11 1/4"	11.2500	285.750
11 1/2"	11.5000	292.100
11 3/4"	11.7500	298.450
12"	12.0000	304.800

mm to inches chart, with the nearest fraction

Millimeters to decimal inches and the nearest 1/16, 1/32 and 1/64 inch; in brackets how many millimeters the fraction is longer (+) or shorter (-)

MM	INCHES	NEAREST 1/16	NEAREST 1/32	NEAREST 1/64
1	0.0394	1/16 (+0.59)	1/32 (-0.21)	3/64 (+0.19)
2	0.0787	1/16 (-0.41)	3/32 (+0.38)	5/64 (-0.02)
3	0.1181	1/8 (+0.17)	1/8 (+0.17)	1/8 (+0.17)
4	0.1575	3/16 (+0.76)	5/32 (-0.03)	5/32 (-0.03)
5	0.1969	3/16 (-0.24)	3/16 (-0.24)	13/64 (+0.16)
6	0.2362	1/4 (+0.35)	1/4 (+0.35)	15/64 (-0.05)
7	0.2756	1/4 (-0.65)	9/32 (+0.14)	9/32 (+0.14)
8	0.3150	5/16 (-0.06)	5/16 (-0.06)	5/16 (-0.06)
9	0.3543	3/8 (+0.52)	11/32 (-0.27)	23/64 (+0.13)
10	0.3937	3/8 (-0.48)	13/32 (+0.32)	25/64 (-0.08)
11	0.4331	7/16 (+0.11)	7/16 (+0.11)	7/16 (+0.11)
12	0.4724	1/2 (+0.70)	15/32 (-0.09)	15/32 (-0.09)
13	0.5118	1/2 (-0.30)	1/2 (-0.30)	33/64 (+0.10)
14	0.5512	9/16 (+0.29)	9/16 (+0.29)	35/64 (-0.11)
15	0.5906	9/16 (-0.71)	19/32 (+0.08)	19/32 (+0.08)
16	0.6299	5/8 (-0.12)	5/8 (-0.12)	5/8 (-0.12)
17	0.6693	11/16 (+0.46)	21/32 (-0.33)	43/64 (+0.07)
18	0.7087	11/16 (-0.54)	23/32 (+0.26)	45/64 (-0.14)

MM	INCHES	NEAREST 1/16	NEAREST 1/32	NEAREST 1/64
19	0.7480	3/4 (+0.05)	3/4 (+0.05)	3/4 (+0.05)
20	0.7874	13/16 (+0.64)	25/32 (-0.16)	25/32 (-0.16)
21	0.8268	13/16 (-0.36)	13/16 (-0.36)	53/64 (+0.03)
22	0.8661	7/8 (+0.22)	7/8 (+0.22)	55/64 (-0.17)
23	0.9055	7/8 (-0.78)	29/32 (+0.02)	29/32 (+0.02)
24	0.9449	15/16 (-0.19)	15/16 (-0.19)	15/16 (-0.19)
25	0.9843	1 (+0.40)	31/32 (-0.39)	63/64 (+0.00)
26	1.0236	1 (-0.60)	1 1/32 (+0.19)	1 1/32 (+0.19)
27	1.0630	1 1/16 (-0.01)	1 1/16 (-0.01)	1 1/16 (-0.01)
28	1.1024	1 1/8 (+0.57)	1 3/32 (-0.22)	1 7/64 (+0.18)
29	1.1417	1 1/8 (-0.42)	1 5/32 (+0.37)	1 9/64 (-0.03)
30	1.1811	1 3/16 (+0.16)	1 3/16 (+0.16)	1 3/16 (+0.16)
31	1.2205	1 1/4 (+0.75)	1 7/32 (-0.04)	1 7/32 (-0.04)
32	1.2598	1 1/4 (-0.25)	1 1/4 (-0.25)	1 17/64 (+0.15)
33	1.2992	1 5/16 (+0.34)	1 5/16 (+0.34)	1 19/64 (-0.06)
34	1.3386	1 5/16 (-0.66)	1 11/32 (+0.13)	1 11/32 (+0.13)
35	1.3780	1 3/8 (-0.07)	1 3/8 (-0.07)	1 3/8 (-0.07)
36	1.4173	1 7/16 (+0.51)	1 13/32 (-0.28)	1 27/64 (+0.12)
37	1.4567	1 7/16 (-0.49)	1 15/32 (+0.31)	1 29/64 (-0.09)
38	1.4961	1 1/2 (+0.10)	1 1/2 (+0.10)	1 1/2 (+0.10)
39	1.5354	1 9/16 (+0.69)	1 17/32 (-0.11)	1 17/32 (-0.11)
40	1.5748	1 9/16 (-0.31)	1 9/16 (-0.31)	1 37/64 (+0.08)
41	1.6142	1 5/8 (+0.27)	1 5/8 (+0.27)	1 39/64 (-0.12)
42	1.6535	1 5/8 (-0.73)	1 21/32 (+0.07)	1 21/32 (+0.07)
43	1.6929	1 11/16 (-0.14)	1 11/16 (-0.14)	1 11/16 (-0.14)
44	1.7323	1 3/4 (+0.45)	1 23/32 (-0.34)	1 47/64 (+0.05)
45	1.7717	1 3/4 (-0.55)	1 25/32 (+0.24)	1 49/64 (-0.15)

MM	INCHES	NEAREST 1/16	NEAREST 1/32	NEAREST 1/64
46	1.8110	1 13/16 (+0.04)	1 13/16 (+0.04)	1 13/16 (+0.04)
47	1.8504	1 7/8 (+0.62)	1 27/32 (-0.17)	1 27/32 (-0.17)
48	1.8898	1 7/8 (-0.38)	1 7/8 (-0.38)	1 57/64 (+0.02)
49	1.9291	1 15/16 (+0.21)	1 15/16 (+0.21)	1 59/64 (-0.18)
50	1.9685	1 15/16 (-0.79)	1 31/32 (+0.01)	1 31/32 (+0.01)
55	2.1654	2 3/16 (+0.56)	2 5/32 (-0.23)	2 11/64 (+0.17)
60	2.3622	2 3/8 (+0.32)	2 3/8 (+0.32)	2 23/64 (-0.07)
65	2.5591	2 9/16 (+0.09)	2 9/16 (+0.09)	2 9/16 (+0.09)
70	2.7559	2 3/4 (-0.15)	2 3/4 (-0.15)	2 3/4 (-0.15)
75	2.9528	2 15/16 (-0.39)	2 15/16 (-0.39)	2 61/64 (+0.01)
80	3.1496	3 1/8 (-0.63)	3 5/32 (+0.17)	3 5/32 (+0.17)
85	3.3465	3 3/8 (+0.72)	3 11/32 (-0.07)	3 11/32 (-0.07)
90	3.5433	3 9/16 (+0.49)	3 17/32 (-0.31)	3 35/64 (+0.09)
95	3.7402	3 3/4 (+0.25)	3 3/4 (+0.25)	3 47/64 (-0.15)
100	3.9370	3 15/16 (+0.01)	3 15/16 (+0.01)	3 15/16 (+0.01)
105	4.1339	4 1/8 (-0.23)	4 1/8 (-0.23)	4 9/64 (+0.17)
110	4.3307	4 5/16 (-0.46)	4 11/32 (+0.33)	4 21/64 (-0.07)
115	4.5276	4 1/2 (-0.70)	4 17/32 (+0.09)	4 17/32 (+0.09)
120	4.7244	4 3/4 (+0.65)	4 23/32 (-0.14)	4 23/32 (-0.14)
125	4.9213	4 15/16 (+0.41)	4 29/32 (-0.38)	4 59/64 (+0.02)
130	5.1181	5 1/8 (+0.17)	5 1/8 (+0.17)	5 1/8 (+0.17)
135	5.3150	5 5/16 (-0.06)	5 5/16 (-0.06)	5 5/16 (-0.06)
140	5.5118	5 1/2 (-0.30)	5 1/2 (-0.30)	5 33/64 (+0.10)
145	5.7087	5 11/16 (-0.54)	5 23/32 (+0.26)	5 45/64 (-0.14)
150	5.9055	5 7/8 (-0.78)	5 29/32 (+0.02)	5 29/32 (+0.02)
155	6.1024	6 1/8 (+0.57)	6 3/32 (-0.22)	6 7/64 (+0.18)
160	6.2992	6 5/16 (+0.34)	6 5/16 (+0.34)	6 19/64 (-0.06)

MM	INCHES	NEAREST 1/16	NEAREST 1/32	NEAREST 1/64
165	6.4961	6 1/2 (+0.10)	6 1/2 (+0.10)	6 1/2 (+0.10)
170	6.6929	6 11/16 (-0.14)	6 11/16 (-0.14)	6 11/16 (-0.14)
175	6.8898	6 7/8 (-0.38)	6 7/8 (-0.38)	6 57/64 (+0.02)
180	7.0866	7 1/16 (-0.61)	7 3/32 (+0.18)	7 3/32 (+0.18)
185	7.2835	7 5/16 (+0.74)	7 9/32 (-0.06)	7 9/32 (-0.06)
190	7.4803	7 1/2 (+0.50)	7 15/32 (-0.29)	7 31/64 (+0.10)
195	7.6772	7 11/16 (+0.26)	7 11/16 (+0.26)	7 43/64 (-0.13)
200	7.8740	7 7/8 (+0.02)	7 7/8 (+0.02)	7 7/8 (+0.02)
205	8.0709	8 1/16 (-0.21)	8 1/16 (-0.21)	8 5/64 (+0.18)
210	8.2677	8 1/4 (-0.45)	8 9/32 (+0.34)	8 17/64 (-0.05)
215	8.4646	8 7/16 (-0.69)	8 15/32 (+0.11)	8 15/32 (+0.11)
220	8.6614	8 11/16 (+0.66)	8 21/32 (-0.13)	8 21/32 (-0.13)
225	8.8583	8 7/8 (+0.42)	8 27/32 (-0.37)	8 55/64 (+0.03)
230	9.0551	9 1/16 (+0.19)	9 1/16 (+0.19)	9 1/16 (+0.19)
235	9.2520	9 1/4 (-0.05)	9 1/4 (-0.05)	9 1/4 (-0.05)
240	9.4488	9 7/16 (-0.29)	9 7/16 (-0.29)	9 29/64 (+0.11)
245	9.6457	9 5/8 (-0.53)	9 21/32 (+0.27)	9 41/64 (-0.13)
250	9.8425	9 13/16 (-0.76)	9 27/32 (+0.03)	9 27/32 (+0.03)
255	10.0394	10 1/16 (+0.59)	10 1/32 (-0.21)	10 3/64 (+0.19)
260	10.2362	10 1/4 (+0.35)	10 1/4 (+0.35)	10 15/64 (-0.05)
265	10.4331	10 7/16 (+0.11)	10 7/16 (+0.11)	10 7/16 (+0.11)
270	10.6299	10 5/8 (-0.13)	10 5/8 (-0.13)	10 5/8 (-0.13)
275	10.8268	10 13/16 (-0.36)	10 13/16 (-0.36)	10 53/64 (+0.03)
280	11.0236	11 (-0.60)	11 1/32 (+0.19)	11 1/32 (+0.19)
285	11.2205	11 1/4 (+0.75)	11 7/32 (-0.04)	11 7/32 (-0.04)
290	11.4173	11 7/16 (+0.51)	11 13/32 (-0.28)	11 27/64 (+0.12)
295	11.6142	11 5/8 (+0.27)	11 5/8 (+0.27)	11 39/64 (-0.12)

MM	INCHES	NEAREST 1/16	NEAREST 1/32	NEAREST 1/64
300	11.8110	11 13/16 (+0.04)	11 13/16 (+0.04)	11 13/16 (+0.04)

How do you convert inches to mm?

Multiply by 25.4: 3/8 inch is 0.3750 × 25.4 = 9.525 mm. To centimeters, multiply by 2.54 instead: 12 inches is 30.48 cm.

How do you convert mm to a fraction of an inch?

Divide by 25.4, multiply by 16 and round to a whole number of sixteenths: 7.94 mm is 0.3126 in, × 16 = 5, so 5/16 inch, 0.003 mm shorter. Use 32 or 64 for a finer fraction.

How do you convert inches to cm?

Multiply by 2.54, because an inch is exactly 2.54 cm: 8 inches is 20.32 cm, 36 inches 91.44 cm.

Calculated with standard formulas; no reference table is involved.

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