

ENGINEERING and TECHNICAL

How to convert from °Celsius to °Fahrenheit, or °Fahrenheit to °Celsius

Locate the known temperature (either Fahrenheit or Celsius) in the center shaded column. Read left to convert from Celsius to Fahrenheit, or right to convert from Fahrenheit to Celsius.

| To °F | From | To °C | To °F | From | To °C | To °F | From | To °C | To °F | From | To °C | To °F | From | To °C | To °F | From | To °C |
|--------|------|--------|-------|------|-------|-------|------|--------|-------|------|--------|-------|------|--------|--------|------|--------|
| -148.0 | -100 | -73.33 | 75.2 | 24 | -4.44 | 298.4 | 148 | 64.44 | 521.6 | 272 | 133.33 | 744.8 | 396 | 202.22 | 968.0 | 520 | 271.11 |
| -144.4 | -98 | -72.22 | 78.8 | 26 | -3.33 | 302.0 | 150 | 65.56 | 525.2 | 274 | 134.44 | 748.4 | 398 | 203.33 | 971.6 | 522 | 272.22 |
| -140.8 | -96 | -71.11 | 82.4 | 28 | -2.22 | 305.6 | 152 | 66.67 | 528.8 | 276 | 135.56 | 752.0 | 400 | 204.44 | 975.2 | 524 | 273.33 |
| -137.2 | -94 | -70.00 | 86.0 | 30 | -1.11 | 309.2 | 154 | 67.78 | 532.4 | 278 | 136.67 | 755.6 | 402 | 205.56 | 978.8 | 526 | 274.44 |
| -133.6 | -92 | -68.89 | 89.6 | 32 | 0.00 | 312.8 | 156 | 68.89 | 536.0 | 280 | 137.78 | 759.2 | 404 | 206.67 | 982.4 | 528 | 275.56 |
| -130.0 | -90 | -67.78 | 93.2 | 34 | 1.11 | 316.4 | 158 | 70.00 | 539.6 | 282 | 138.89 | 762.8 | 406 | 207.78 | 986.0 | 530 | 276.67 |
| -126.4 | -88 | -66.70 | 96.8 | 36 | 2.22 | 320.0 | 160 | 71.11 | 543.2 | 284 | 140.00 | 766.4 | 408 | 208.89 | 989.6 | 532 | 277.78 |
| -122.8 | -86 | -65.56 | 100.4 | 38 | 3.33 | 323.6 | 162 | 72.22 | 546.8 | 286 | 141.11 | 770.0 | 410 | 210.00 | 993.2 | 534 | 278.89 |
| -119.2 | -84 | -64.44 | 104.0 | 40 | 4.44 | 327.2 | 164 | 73.33 | 550.4 | 288 | 142.22 | 773.6 | 412 | 211.11 | 996.8 | 536 | 280.00 |
| -115.6 | -82 | -63.33 | 107.6 | 42 | 5.56 | 330.8 | 166 | 74.44 | 554.0 | 290 | 143.33 | 777.2 | 414 | 212.22 | 1000.4 | 538 | 281.11 |
| -112.0 | -80 | -62.22 | 111.2 | 44 | 6.67 | 334.4 | 168 | 75.56 | 557.6 | 292 | 144.44 | 780.8 | 416 | 213.33 | 1004.0 | 540 | 282.22 |
| -108.4 | -78 | -61.11 | 114.8 | 46 | 7.78 | 338.0 | 170 | 76.67 | 561.2 | 294 | 145.56 | 784.4 | 418 | 214.44 | 1007.6 | 542 | 283.33 |
| -104.8 | -76 | -60.00 | 118.4 | 48 | 8.89 | 341.6 | 172 | 77.78 | 564.8 | 296 | 146.67 | 788.0 | 420 | 215.56 | 1011.2 | 544 | 284.44 |
| -101.2 | -74 | -58.89 | 122.0 | 50 | 10.00 | 345.2 | 174 | 78.89 | 568.4 | 298 | 147.78 | 791.6 | 422 | 216.67 | 1014.8 | 546 | 285.56 |
| -97.6 | -72 | -57.78 | 125.6 | 52 | 11.11 | 348.8 | 176 | 80.00 | 572.0 | 300 | 148.89 | 795.2 | 424 | 217.78 | 1018.4 | 548 | 286.67 |
| -94.0 | -70 | -56.67 | 129.2 | 54 | 12.22 | 352.4 | 178 | 81.11 | 575.6 | 302 | 150.00 | 798.8 | 426 | 218.89 | 1022.0 | 550 | 287.78 |
| -90.4 | -68 | -55.56 | 132.8 | 56 | 13.33 | 356.0 | 180 | 82.22 | 579.2 | 304 | 151.11 | 802.4 | 428 | 220.00 | 1040.0 | 560 | 293.33 |
| -86.8 | -66 | -54.44 | 136.4 | 58 | 14.44 | 359.6 | 182 | 83.33 | 582.8 | 306 | 152.22 | 806.0 | 430 | 221.11 | 1058.0 | 570 | 298.89 |
| -83.2 | -64 | -53.33 | 140.0 | 60 | 15.56 | 363.2 | 184 | 84.44 | 586.4 | 308 | 153.33 | 809.6 | 432 | 222.22 | 1076.0 | 580 | 304.44 |
| -79.6 | -62 | -52.22 | 143.6 | 62 | 16.67 | 366.8 | 186 | 85.56 | 590.0 | 310 | 154.44 | 813.2 | 434 | 223.33 | 1094.0 | 590 | 310.00 |
| -76.0 | -60 | -51.11 | 147.2 | 64 | 17.78 | 370.4 | 188 | 86.67 | 593.6 | 312 | 155.56 | 816.8 | 436 | 224.44 | 1112.0 | 600 | 315.56 |
| -72.4 | -58 | -50.00 | 150.8 | 66 | 18.89 | 374.0 | 190 | 87.78 | 597.2 | 314 | 156.67 | 820.4 | 438 | 225.56 | 1130.0 | 610 | 321.11 |
| -68.8 | -56 | -48.89 | 154.4 | 68 | 20.00 | 377.6 | 192 | 88.89 | 600.8 | 316 | 157.78 | 824.0 | 440 | 226.67 | 1148.0 | 620 | 326.67 |
| -65.2 | -54 | -47.78 | 158.0 | 70 | 21.11 | 381.2 | 194 | 90.00 | 604.4 | 318 | 158.89 | 827.6 | 442 | 227.78 | 1166.0 | 630 | 332.22 |
| -61.6 | -52 | -46.67 | 161.6 | 72 | 22.22 | 384.8 | 196 | 91.11 | 608.0 | 320 | 160.00 | 831.2 | 444 | 228.89 | 1184.0 | 640 | 337.78 |
| -58.0 | -50 | -45.56 | 165.2 | 74 | 23.33 | 388.4 | 198 | 92.22 | 611.6 | 322 | 161.11 | 834.8 | 446 | 230.00 | 1202.0 | 650 | 343.33 |
| -54.4 | -48 | -44.44 | 168.8 | 76 | 24.44 | 392.0 | 200 | 93.33 | 615.2 | 324 | 162.22 | 838.4 | 448 | 231.11 | 1220.0 | 660 | 348.89 |
| -50.8 | -46 | -43.33 | 172.4 | 78 | 25.56 | 395.6 | 202 | 94.44 | 618.8 | 326 | 163.33 | 842.0 | 450 | 232.22 | 1238.0 | 670 | 354.44 |
| -47.2 | -44 | -42.22 | 176.0 | 80 | 26.67 | 399.2 | 204 | 95.56 | 622.4 | 328 | 164.44 | 845.6 | 452 | 233.33 | 1256.0 | 680 | 360.00 |
| -43.6 | -42 | -41.11 | 179.6 | 82 | 27.78 | 402.8 | 206 | 96.67 | 626.0 | 330 | 165.56 | 849.2 | 454 | 234.44 | 1274.0 | 690 | 365.56 |
| -40.0 | -40 | -40.00 | 183.2 | 84 | 28.89 | 406.4 | 208 | 97.78 | 629.6 | 332 | 166.67 | 852.8 | 456 | 235.56 | 1292.0 | 700 | 371.11 |
| -36.4 | -38 | -38.89 | 186.8 | 86 | 30.00 | 410.0 | 210 | 98.89 | 633.2 | 334 | 167.78 | 856.4 | 458 | 236.67 | 1310.0 | 710 | 376.67 |
| -32.8 | -36 | -37.78 | 190.4 | 88 | 31.11 | 413.6 | 212 | 100.00 | 636.8 | 336 | 168.89 | 860.0 | 460 | 237.78 | 1328.0 | 720 | 382.22 |
| -29.2 | -34 | -36.67 | 194.0 | 90 | 32.22 | 417.2 | 214 | 101.11 | 640.4 | 338 | 170.00 | 863.6 | 462 | 238.89 | 1346.0 | 730 | 387.78 |
| -25.6 | -32 | -35.56 | 197.6 | 92 | 33.33 | 420.8 | 216 | 102.22 | 644.0 | 340 | 171.11 | 867.2 | 464 | 240.00 | 1364.0 | 740 | 393.33 |
| -22.0 | -30 | -34.44 | 201.2 | 94 | 34.44 | 424.4 | 218 | 103.33 | 647.6 | 342 | 172.22 | 870.8 | 466 | 241.11 | 1382.0 | 750 | 398.89 |
| -18.4 | -28 | -33.33 | 204.8 | 96 | 35.56 | 428.0 | 220 | 104.44 | 651.2 | 344 | 173.33 | 874.4 | 468 | 242.22 | 1400.0 | 760 | 404.44 |
| -14.8 | -26 | -32.22 | 208.4 | 98 | 36.67 | 431.6 | 222 | 105.56 | 654.8 | 346 | 174.44 | 878.0 | 470 | 243.33 | 1418.0 | 770 | 410.00 |
| -11.2 | -24 | -31.11 | 212.0 | 100 | 37.78 | 435.2 | 224 | 106.67 | 658.4 | 348 | 175.56 | 881.6 | 472 | 244.44 | 1436.0 | 780 | 415.56 |
| -7.6 | -22 | -30.00 | 215.6 | 102 | 38.89 | 438.8 | 226 | 107.78 | 662.0 | 350 | 176.67 | 885.2 | 474 | 245.56 | 1454.0 | 790 | 421.11 |
| -4.0 | -20 | -28.89 | 219.2 | 104 | 40.00 | 442.4 | 228 | 108.89 | 665.6 | 352 | 177.78 | 888.8 | 476 | 246.67 | 1472.0 | 800 | 426.67 |
| 0.4 | -18 | -27.78 | 222.8 | 106 | 41.11 | 446.0 | 230 | 110.00 | 669.2 | 354 | 178.89 | 892.4 | 478 | 247.78 | 1490.0 | 810 | 432.22 |
| 3.3 | -16 | -26.67 | 226.4 | 108 | 42.22 | 449.6 | 232 | 111.11 | 672.8 | 356 | 180.00 | 896.0 | 480 | 248.89 | 1508.0 | 820 | 437.78 |
| 6.8 | -14 | -25.56 | 230.0 | 110 | 43.33 | 453.2 | 234 | 112.22 | 676.4 | 358 | 181.11 | 899.6 | 482 | 250.00 | 1526.0 | 830 | 443.33 |
| 10.4 | -12 | -24.44 | 233.6 | 112 | 44.44 | 456.8 | 236 | 113.33 | 680.0 | 360 | 182.22 | 903.2 | 484 | 251.11 | 1544.0 | 840 | 448.89 |
| 14.0 | -10 | -23.33 | 237.2 | 114 | 45.56 | 460.4 | 238 | 114.44 | 683.6 | 362 | 183.33 | 906.8 | 486 | 252.22 | 1562.0 | 850 | 454.44 |
| 17.6 | -8 | -22.22 | 240.8 | 116 | 46.67 | 464.0 | 240 | 115.56 | 687.2 | 364 | 184.44 | 910.4 | 488 | 253.33 | 1580.0 | 860 | 460.00 |
| 21.2 | -6 | -21.11 | 244.4 | 118 | 47.78 | 467.6 | 242 | 116.67 | 690.8 | 366 | 185.56 | 914.0 | 490 | 254.44 | 1598.0 | 870 | 465.56 |
| 24.8 | -4 | -20.00 | 248.0 | 120 | 48.89 | 471.2 | 244 | 117.78 | 694.4 | 368 | 186.67 | 917.6 | 492 | 255.56 | 1616.0 | 880 | 471.11 |
| 28.4 | -2 | -18.89 | 251.6 | 122 | 50.00 | 474.8 | 246 | 118.89 | 698.0 | 370 | 187.78 | 921.2 | 494 | 256.67 | 1634.0 | 890 | 476.67 |
| 32.0 | 0 | -17.78 | 255.2 | 124 | 51.11 | 478.4 | 248 | 120.00 | 701.6 | 372 | 188.89 | 924.8 | 496 | 257.78 | 1652.0 | 900 | 482.22 |
| 35.6 | 2 | -16.67 | 258.8 | 126 | 52.22 | 482.0 | 250 | 121.11 | 705.2 | 374 | 190.00 | 928.4 | 498 | 258.89 | 1670.0 | 910 | 487.78 |
| 39.2 | 4 | -15.56 | 262.4 | 128 | 53.33 | 485.6 | 252 | 122.22 | 708.8 | 376 | 191.11 | 932.0 | 500 | 260.00 | 1688.0 | 920 | 493.33 |
| 42.8 | 6 | -14.44 | 266.0 | 130 | 54.44 | 489.2 | 254 | 123.33 | 712.4 | 378 | 192.22 | 935.6 | 502 | 261.11 | 1706.0 | 930 | 498.89 |
| 46.4 | 8 | -13.33 | 269.6 | 132 | 55.56 | 492.8 | 256 | 124.44 | 716.0 | 380 | 193.33 | 939.2 | 504 | 262.22 | 1724.0 | 940 | 504.44 |
| 50.0 | 10 | -12.22 | 273.2 | 134 | 56.67 | 496.4 | 258 | 125.56 | 719.6 | 382 | 194.44 | 942.8 | 506 | 263.33 | 1742.0 | 950 | 510.00 |
| 53.6 | 12 | -11.11 | 276.8 | 136 | 57.78 | 500.0 | 260 | 126.67 | 723.2 | 384 | 195.56 | 946.4 | 508 | 264.44 | 1760.0 | 960 | 515.56 |
| 57.2 | 14 | -10.00 | 280.4 | 138 | 58.89 | 503.6 | 262 | 127.78 | 726.8 | 386 | 196.67 | 950.0 | 510 | 265.56 | 1778.0 | 970 | 521.11 |
| 60.8 | 16 | -8.89 | 284.0 | 140 | 60.00 | 507.2 | 264 | 128.89 | 730.4 | 388 | 197.78 | 953.6 | 512 | 266.67 | 1796.0 | 980 | 526.67 |
| 64.4 | 18 | -7.78 | 287.6 | 142 | 61.11 | 510.8 | 266 | 130.00 | 734.0 | 390 | 198.89 | 957.2 | 514 | 267.78 | 1814.0 | 990 | 532.22 |
| 68.0 | 20 | -6.67 | 291.2 | 144 | 62.22 | 514.4 | 268 | 131.11 | 737.6 | 392 | 200.00 | 960.8 | 516 | 268.89 | 1832.0 | 1000 | 537.78 |
| 71.6 | 22 | -5.56 | 294.8 | 146 | 63.33 | 518.0 | 270 | 132.22 | 741.2 | 394 | 201.11 | 964.4 | 518 | 270.00 | | | |

$$^{\circ}\text{F} = (9/5\ ^{\circ}\text{C}) + 32 \quad ^{\circ}\text{C} = 5/9 (^{\circ}\text{F} - 32)$$