# values of gamma function for small positive real values

The following table lists values of $\Gamma(x)$ for real $0 \le x < 10$ in steps of $\frac{1}{10}$. If the table is correct, it should confirm for a real nonnegative integer $n$ the following equality: $\Gamma(n) = (n-1)!$, with the notable exception of $n = 0$, for which the value is complex infinity. Generally speaking, for values of $x$ in the relation $n < x < (n+1)$, the relation $\Gamma(n) < \Gamma(x) < \Gamma(n+1)$ always holds, but not when $0 < x < 2$.

| $x$ | $\Gamma(x)$ | $x$ | $\Gamma(x)$ |
|-----|-------------|-----|-------------|
| 0 | $\infty$ | 5 | 24 |
| 0.1 | 9.51351 | 5.1 | 27.9318 |
| 0.2 | 4.59084 | 5.2 | 32.5781 |
| 0.3 | 2.99157 | 5.3 | 38.078 |
| 0.4 | 2.21816 | 5.4 | 44.5988 |
| 0.5 | 1.77245 | 5.5 | 52.3428 |
| 0.6 | 1.48919 | 5.6 | 61.5539 |
| 0.7 | 1.29806 | 5.7 | 72.5276 |
| 0.8 | 1.16423 | 5.8 | 85.6217 |
| 0.9 | 1.06863 | 5.9 | 101.27 |
| 1 | 1 | 6 | 120 |
| 1.1 | 0.951351 | 6.1 | 142.452 |
| 1.2 | 0.918169 | 6.2 | 169.406 |
| 1.3 | 0.897471 | 6.3 | 201.813 |
| 1.4 | 0.887264 | 6.4 | 240.834 |
| 1.5 | 0.886227 | 6.5 | 287.885 |
| 1.6 | 0.893515 | 6.6 | 344.702 |
| 1.7 | 0.908639 | 6.7 | 413.408 |
| 1.8 | 0.931384 | 6.8 | 496.606 |
| 1.9 | 0.961766 | 6.9 | 597.494 |
| 2 | 1 | 7 | 720 |
| 2.1 | 1.04649 | 7.1 | 868.957 |
| 2.2 | 1.1018 | 7.2 | 1050.32 |
| 2.3 | 1.16671 | 7.3 | 1271.42 |
| 2.4 | 1.24217 | 7.4 | 1541.34 |
| 2.5 | 1.32934 | 7.5 | 1871.25 |
| 2.6 | 1.42962 | 7.6 | 2275.03 |
| 2.7 | 1.54469 | 7.7 | 2769.83 |
| 2.8 | 1.67649 | 7.8 | 3376.92 |
| 2.9 | 1.82736 | 7.9 | 4122.71 |
| 3 | 2 | 8 | 5040 |
| 3.1 | 2.19762 | 8.1 | 6169.59 |
| 3.2 | 2.42397 | 8.2 | 7562.29 |
| 3.3 | 2.68344 | 8.3 | 9281.39 |
| 3.4 | 2.98121 | 8.4 | 11405.9 |
| 3.5 | 3.32335 | 8.5 | 14034.4 |
| 3.6 | 3.71702 | 8.6 | 17290.2 |
| 3.7 | 4.17065 | 8.7 | 21327.7 |
| 3.8 | 4.69417 | 8.8 | 26340 |
| 3.9 | 5.29933 | 8.9 | 32569.4 |
| 4 | 6 | 9 | 40320 |
| 4.1 | 6.81262 | 9.1 | 49973.7 |
| 4.2 | 7.75669 | 9.2 | 62010.8 |
| 4.3 | 8.85534 | 9.3 | 77035.6 |
| 4.4 | 10.1361 | 9.4 | 95809.5 |