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values of gamma function for small positive real values

 ${\bf Canonical\ name} \quad {\bf ValuesOfGammaFunctionForSmallPositiveRealValues}$

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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	$\Gamma(x)$	$\mid x \mid$	$\Gamma(x)$
0	∞	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	$\frac{5.6}{5.4}$	44.5988
0.5	1.77245	5.5	52.3428
0.6	1.48919	$\frac{5.6}{5.6}$	61.5539
0.000	1.29806	5.7	72.5276
0.7	1.16423	5.8	85.6217
0.8	1.10423	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	1403.9 14034.4
3.6	3.71702	8.6	17290.2
$\begin{vmatrix} 3.0 \\ 3.7 \end{vmatrix}$	$\frac{3.71702}{4.17065}$	8.6	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