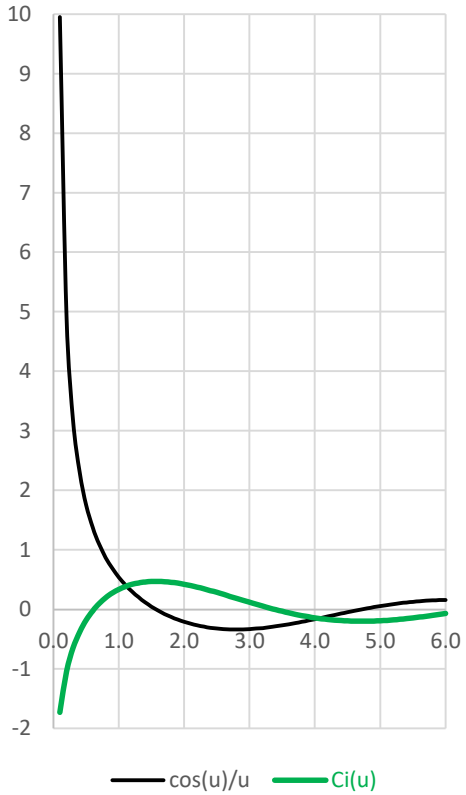
Integral-Cosinus (Ci) und Integral-Sinus (Si)

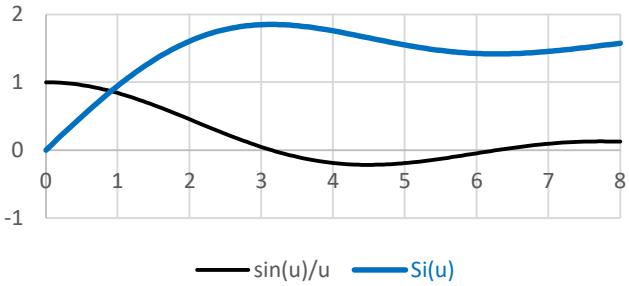
$$\mathrm{Ci}(u) = -\int_u^{+\infty} \frac{\cos(t)}{t}\,dt \qquad Si(u) = \int_0^u \frac{\sin(t)}{t}\,dt$$

u	cos(u)	cos(u)/u	sin(u)	sin(u)/u	Ci(u)	Si(u)
0	1	+∞	0	1	-∞	0
0.1	0.995004	9.950042	0.099833	0.998334	-1.727868	0.099944
0.2	0.980067	4.900333	0.198669	0.993347	-1.042206	0.199556
0.3	0.955336	3.184455	0.295520	0.985067	-0.649173	0.298504
0.4	0.921061	2.302652	0.389418	0.973546	-0.378809	0.396461
0.5	0.877583	1.755165	0.479426	0.958851	-0.177784	0.493107
0.6	0.825336	1.375559	0.564642	0.941071	-0.022271	0.588129
0.7	0.764842	1.092632	0.644218	0.920311	0.100515	0.681222
0.8	0.696707	0.870883	0.717356	0.896695	0.198279	0.772096
0.9	0.621610	0.690678	0.783327	0.870363	0.276068	0.860471
1.0	0.540302	0.540302	0.841471	0.841471	0.337404	0.946083
1.1	0.453596	0.412360	0.891207	0.810189	0.384873	1.028685
1.2	0.362358	0.301965	0.932039	0.776699	0.420459	1.108047
1.3	0.267499	0.205768	0.963558	0.741199	0.445739	1.183958
1.4	0.169967	0.121405	0.985450	0.703893	0.462007	1.256227
1.5	0.070737	0.047158	0.997495	0.664997	0.470356	1.324684
1.6	-0.029200	-0.018250	0.999574	0.624734	0.471733	1.389180
1.7	-0.128844	-0.075791	0.991665	0.583332	0.466968	1.449592
1.8	-0.227202	-0.126223	0.973848	0.541026	0.456811	1.505817
1.9	-0.323290	-0.170152	0.946300	0.498053	0.441940	1.557775
2.0	-0.416147	-0.208073	0.909297	0.454649	0.422981	1.605413
2.1	-0.504846	-0.240403	0.863209	0.411052	0.400512	1.648699
2.2	-0.588501	-0.267501	0.808496	0.367498	0.375075	1.687625
2.3	-0.666276	-0.289685	0.745705	0.324220	0.347176	1.722207
2.4	-0.737394	-0.307247	0.675463	0.281443	0.317292	1.752486
2.5	-0.801144	-0.320457	0.598472	0.239389	0.285871	1.778520

u vs. cos(u)/u bzw. Ci(u)
(Ci(u))' = cos(u)/u



u vs. sin(u)/u bzw. Si(u)
(Si(u))' = sin(u)/u



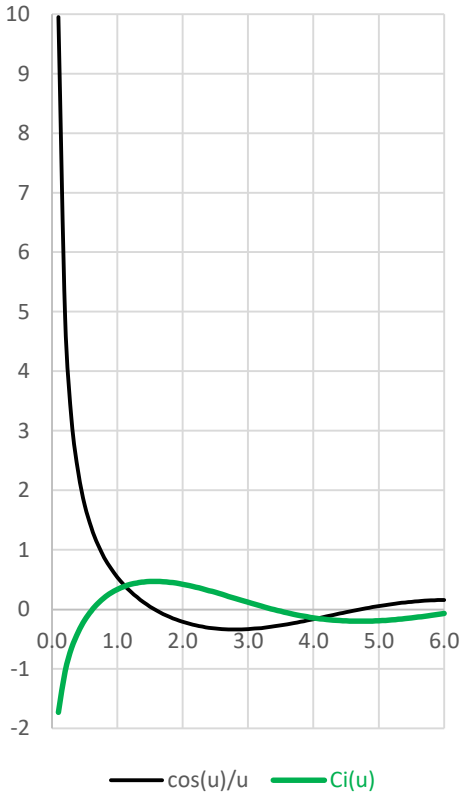
Integral-Cosinus (Ci) und Integral-Sinus (Si)

$$\mathrm{Ci}(u) = -\int_u^{+\infty} \frac{cos(t)}{t} dt \qquad Si(u) = \int_0^u \frac{sin(t)}{t} dt$$

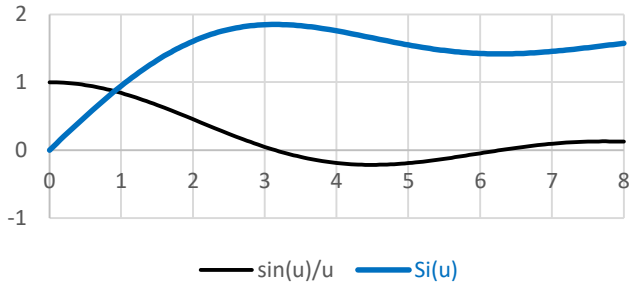
Sine and cosine integral Si(u),Ci(u) (chart) Calculator
https://keisan.casio.com/exec/system/1180573420

Überprüfung der Integral-Differential-Werte-Beziehung.
also: Ableitung des Ci(u)-Werteverlaufs = cos(u)/u
! Ci(u) ist keine Stammfunktion !

u vs. cos(u)/u bzw. Ci(u)
(Ci(u))' = cos(u)/u



u vs. sin(u)/u bzw. Si(u)
(Si(u))' = sin(u)/u



u	Cn	Cn+1-Cn	Anstieg k	cos(u)/u
0.10000	-1.727868387			9.950042
0.10001	-1.727768891	0.000099496	9.949600	9.949037
0.10002	-1.727669406	0.000099485	9.948500	9.948032
0.10003	-1.727569931	0.000099475	9.947500	9.947028
0.10004	-1.727470465	0.000099466	9.946600	9.946023
0.10005	-1.727371010	0.000099455	9.945500	9.945019
u	Cn	Cn+1-Cn	Anstieg k	cos(u)/u
2.000	0.422980829			-0.208073
2.001	0.422772580	-0.000208249	-0.208249	-0.208424
2.002	0.422563982	-0.000208599	-0.208599	-0.208774
2.003	0.422355033	-0.000208948	-0.208948	-0.209123
2.004	0.422145736	-0.000209297	-0.209297	-0.209471
2.005	0.421936091	-0.000209646	-0.209646	-0.209820