

INVERSE HYPERBOLIC FUNCTIONS

Table 4.17

x^{-1}	arsinh $x - \ln x$	arcosh $x - \ln x$	$\langle x \rangle$	x^{-1}	arsinh $x - \ln x$	arcosh $x - \ln x$	$\langle x \rangle$
0.50	0.75048 82946	0.62381 07164	2	0.25	0.70841 81861	0.67714 27078	4
0.49	0.74839 16011	0.62685 90940	2	0.24	0.70724 57326	0.67842 57947	4
0.48	0.74632 48341	0.62981 77884	2	0.23	0.70611 72820	0.67965 18411	4
0.47	0.74428 85962	0.63268 90778	2	0.22	0.70503 32895	0.68082 14660	5
0.46	0.74228 34908	0.63547 51194	2	0.21	0.70399 41963	0.68193 52541	5
0.45	0.74031 01215	0.63817 79566	2	0.20	0.70300 04288	0.68299 37571	5
0.44	0.73836 90921	0.64079 95268	2	0.19	0.70205 23983	0.68399 74947	5
0.43	0.73646 10057	0.64334 16670	2	0.18	0.70115 05002	0.68494 69555	6
0.42	0.73458 64641	0.64580 61207	2	0.17	0.70029 51134	0.68584 25981	6
0.41	0.73274 60676	0.64819 45429	2	0.16	0.69948 66000	0.68668 48518	6
0.40	0.73094 04145	0.65050 85051	3	0.15	0.69872 53043	0.68747 41175	7
0.39	0.72917 01001	0.65274 95004	3	0.14	0.69801 15527	0.68821 07683	7
0.38	0.72743 57167	0.65491 89477	3	0.13	0.69734 56533	0.68889 51504	8
0.37	0.72573 78524	0.65701 81952	3	0.12	0.69672 78946	0.68952 75836	8
0.36	0.72407 70912	0.65904 85249	3	0.11	0.69615 85462	0.69010 83616	9
0.35	0.72245 40117	0.66101 11555	3	0.10	0.69563 78573	0.69063 77531	10
0.34	0.72086 91873	0.66290 72458	3	0.09	0.69516 60572	0.69111 60018	11
0.33	0.71932 31846	0.66473 78974	3	0.08	0.69474 33542	0.69154 33269	13
0.32	0.71781 65636	0.66650 41577	3	0.07	0.69436 99357	0.69191 99235	14
0.31	0.71634 98766	0.66820 70226	3	0.06	0.69404 59680	0.69224 59631	17
0.30	0.71492 36678	0.66984 74382	3	0.05	0.69377 15954	0.69252 15938	20
0.29	0.71353 84725	0.67142 63038	3	0.04	0.69354 69408	0.69274 69403	25
0.28	0.71219 48165	0.67294 44732	4	0.03	0.69337 21047	0.69292 21046	33
0.27	0.71089 32154	0.67440 27575	4	0.02	0.69324 71656	0.69304 71656	50
0.26	0.70963 41742	0.67580 19258	4	0.01	0.69317 21796	0.69312 21796	100
0.25	0.70841 81861	0.67714 27078	4	0.00	0.69314 71806	0.69314 71806	∞
	$\left[\begin{smallmatrix} (-6)5 \\ 5 \end{smallmatrix} \right]$	$\left[\begin{smallmatrix} (-5)1 \\ 6 \end{smallmatrix} \right]$			$\left[\begin{smallmatrix} (-6)6 \\ 5 \end{smallmatrix} \right]$	* $\left[\begin{smallmatrix} (-6)7 \\ 5 \end{smallmatrix} \right]$	

$\langle x \rangle =$ nearest integer to x .

ROOTS x_n OF $\cos x_n \cosh x_n = 1$

Table 4.18

n	x_n
1	4.73004 07
2	7.85320 46
3	10.99560 78
4	14.13716 55
5	17.27875 96

For $n \geq 5$, $x_n = \frac{1}{2} [2n+1]\pi$

ROOTS x_n OF $\cos x_n \cosh x_n = -1$

n	x_n
1	1.87510 41
2	4.69409 11
3	7.85475 74
4	10.99554 07
5	14.13716 84

For $n > 5$, $x_n = \frac{1}{2} [2n-1]\pi$

*See page II.