

TABELA 23

VALORES NATURAIS DE FUNÇÕES TRIGONOMÉTRICAS

QUADRANTES				SEN	COSEC	TG		COTG		+	+	-	-
IV	III	II	I							+	-	+	-
										+	-	-	+
										+	-	-	+
350°	190°	170°	10°	0.17365	5.75877	0.17633	5.67128	1.01543	0.98481	80°	100°	260°	280°
50'	10'	50'	10'	0.17651	5.66533	0.17933	5.57638	1.01595	0.98430	50'	10'	50'	10'
↑ 40	↓ 20	↑ 40	↓ 20	0.17937	5.57493	0.18233	5.48451	1.01649	0.98378	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.18224	5.48741	0.18534	5.39552	1.01703	0.98325	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.18509	5.40263	0.18835	5.30928	1.01758	0.98272	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.18795	5.32049	0.19136	5.22567	1.01814	0.98218	↑ 10	↓ 50	↑ 10	↓ 50
349	191	169	11	0.19081	5.24084	0.19438	5.14456	1.01872	0.98163	79	101	259	281
50	10	50	10	0.19366	5.16359	0.19740	5.06584	1.01930	0.98107	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.19652	5.08863	0.20042	4.98940	1.01989	0.98050	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.19937	5.01585	0.20345	4.91516	1.02049	0.97992	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.20222	4.94517	0.20648	4.84301	1.02109	0.97934	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.20507	4.87649	0.20952	4.77286	1.02171	0.97875	↑ 10	↓ 50	↑ 10	↓ 50
348	192	168	12	0.20791	4.80974	0.21256	4.70463	1.02234	0.97815	78	102	258	282
50	10	50	10	0.21076	4.74482	0.21560	4.63825	1.02298	0.97754	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.21360	4.68168	0.21864	4.57363	1.02362	0.97692	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.21644	4.62023	0.22169	4.51071	1.02428	0.97630	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.21928	4.56041	0.22475	4.44942	1.02494	0.97566	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.22212	4.50216	0.22781	4.38970	1.02562	0.97502	↑ 10	↓ 50	↑ 10	↓ 50
347	193	167	13	0.22495	4.44541	0.23087	4.33148	1.02630	0.97437	77	103	257	283
50	10	50	10	0.22778	4.39012	0.23393	4.27471	1.02700	0.97371	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.23062	4.33622	0.23700	4.21933	1.02770	0.97304	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.23345	4.28366	0.24008	4.16530	1.02841	0.97237	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.23627	4.23240	0.24316	4.11256	1.02914	0.97169	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.23910	4.18238	0.24624	4.06107	1.02987	0.97100	↑ 10	↓ 50	↑ 10	↓ 50
346	194	166	14	0.24192	4.13357	0.24933	4.01078	1.03061	0.97030	76	104	256	284
50	10	50	10	0.24474	4.08591	0.25242	3.96165	1.03137	0.96959	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.24756	4.03938	0.25552	3.91364	1.03213	0.96887	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.25038	3.99393	0.25862	3.86671	1.03290	0.96815	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.25320	3.94952	0.26172	3.82083	1.03368	0.96742	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.25601	3.90613	0.26483	3.77595	1.03447	0.96667	↑ 10	↓ 50	↑ 10	↓ 50
345	195	165	15	0.25882	3.86370	0.26795	3.73205	1.03528	0.96593	75	105	255	285
50	10	50	10	0.26163	3.82223	0.27107	3.68909	1.03609	0.96517	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.26443	3.78166	0.27419	3.64705	1.03691	0.96440	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.26724	3.74198	0.27732	3.60588	1.03774	0.96363	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.27004	3.70315	0.28046	3.56558	1.03858	0.96285	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.27284	3.66515	0.28360	3.52609	1.03944	0.96206	↑ 10	↓ 50	↑ 10	↓ 50
344	196	164	16	0.27564	3.62796	0.28675	3.48742	1.04030	0.96126	74	106	254	286
50	10	50	10	0.27843	3.59154	0.28990	3.44951	1.04117	0.96046	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.28122	3.55587	0.29305	3.41236	1.04206	0.95964	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.28402	3.52094	0.29621	3.37594	1.04295	0.95882	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.28680	3.48671	0.29938	3.34023	1.04385	0.95799	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.28959	3.45317	0.30255	3.30521	1.04477	0.95715	↑ 10	↓ 50	↑ 10	↓ 50
343	197	163	17	0.29237	3.42030	0.30573	3.27085	1.04569	0.95630	73	107	253	287
50	10	50	10	0.29515	3.38808	0.30891	3.23714	1.04663	0.95545	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.29793	3.35649	0.31210	3.20406	1.04757	0.95459	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.30071	3.32551	0.31530	3.17160	1.04853	0.95372	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.30348	3.29512	0.31850	3.13972	1.04950	0.95284	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.30625	3.26532	0.32171	3.10842	1.05047	0.95195	↑ 10	↓ 50	↑ 10	↓ 50
342	198	162	18	0.30902	3.23607	0.32492	3.07768	1.05146	0.95106	72	108	252	288
50	10	50	10	0.31178	3.20737	0.32814	3.04749	1.05246	0.95015	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.31454	3.17920	0.33136	3.01783	1.05347	0.94924	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.31730	3.15155	0.33460	2.98869	1.05449	0.94832	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.32006	3.12440	0.33783	2.96004	1.05552	0.94740	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.32282	3.09774	0.34108	2.93189	1.05657	0.94646	↑ 10	↓ 50	↑ 10	↓ 50
341	199	161	19	0.32557	3.07155	0.34433	2.90421	1.05762	0.94552	71	109	251	289
50	10	50	10	0.32832	3.04584	0.34758	2.87700	1.05869	0.94457	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.33106	3.02057	0.35085	2.85024	1.05976	0.94361	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.33381	2.99575	0.35412	2.82391	1.06085	0.94264	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.33655	2.97136	0.35740	2.79802	1.06195	0.94167	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.33929	2.94737	0.36068	2.77255	1.06306	0.94068	↑ 10	↓ 50	↑ 10	↓ 50
340	200	160	20	0.34202	2.92381	0.36397	2.74748	1.06418	0.93969	70	110	250	290

+	-	-	+
-	+	-	+
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TABELA 23

VALORES NATURAIS DE FUNÇÕES TRIGONOMÉTRICAS

QUADRANTES				SEN	COSEC	TG		COTG		SEC	COS	+	+	-	-
IV	III	II	I									+	-	+	-
												+	-	+	-
340°	200°	160°	20°	0.34202	2.92381	0.36397	2.74748	1.06418	0.93969	70°	110°	250°	290°		
50'	10'	50'	10'	0.34475	2.90064	0.36727	2.72281	1.06531	0.93869	60'	10'	50'	10'		
↑ 40	↓ 20	↑ 40	↓ 20	0.34748	2.87786	0.37057	2.69853	1.06645	0.93769	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.35021	2.85545	0.37388	2.67462	1.06761	0.93667	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.35293	2.83342	0.37720	2.65109	1.06878	0.93565	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.35565	2.81175	0.38053	2.62791	1.06995	0.93462	↑ 10	↓ 50	↑ 10	↓ 50		
339	201	159	21	0.35837	2.79043	0.38386	2.60509	1.07114	0.93358	69	111	249	291		
50	10	50	10	0.36108	2.76945	0.38721	2.58261	1.07235	0.93253	50	10	50	10		
↑ 40	↓ 20	↑ 40	↓ 20	0.36379	2.74882	0.39055	2.56047	1.07356	0.93148	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.36650	2.72850	0.39391	2.53865	1.07479	0.93042	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.36921	2.70851	0.39727	2.51715	1.07602	0.92935	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.37191	2.68884	0.40065	2.49597	1.07727	0.92827	↑ 10	↓ 50	↑ 10	↓ 50		
338	202	158	22	0.37461	2.66947	0.40403	2.47509	1.07853	0.92718	68	112	248	292		
50	10	50	10	0.37730	2.65040	0.40741	2.45451	1.07981	0.92609	50	10	50	10		
↑ 40	↓ 20	↑ 40	↓ 20	0.37999	2.63162	0.41081	2.43422	1.08109	0.92499	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.38268	2.61313	0.41421	2.41421	1.08239	0.92388	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.38537	2.59491	0.41763	2.39449	1.08370	0.92276	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.38805	2.57698	0.42105	2.37504	1.08502	0.92164	↑ 10	↓ 50	↑ 10	↓ 50		
337	203	157	23	0.39073	2.55931	0.42447	2.35585	1.08636	0.92050	67	113	247	293		
50	10	50	10	0.39341	2.54190	0.42791	2.33693	1.08771	0.91936	50	10	50	10		
↑ 40	↓ 20	↑ 40	↓ 20	0.39608	2.52474	0.43136	2.31826	1.08907	0.91822	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.39875	2.50784	0.43481	2.29984	1.09044	0.91706	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.40141	2.49119	0.43828	2.28167	1.09183	0.91590	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.40408	2.47477	0.44175	2.26374	1.09322	0.91472	↑ 10	↓ 50	↑ 10	↓ 50		
336	204	156	24	0.40674	2.45859	0.44523	2.24604	1.09464	0.91355	66	114	246	294		
50	10	50	10	0.40939	2.44265	0.44872	2.22857	1.09606	0.91236	50	10	50	10		
↑ 40	↓ 20	↑ 40	↓ 20	0.41204	2.42692	0.45222	2.21132	1.09750	0.91116	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.41469	2.41142	0.45573	2.19430	1.09895	0.90996	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.41734	2.39614	0.45924	2.17749	1.10041	0.90875	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.41998	2.38107	0.46277	2.16090	1.10189	0.90753	↑ 10	↓ 50	↑ 10	↓ 50		
335	205	155	25	0.42262	2.36620	0.46631	2.14451	1.10338	0.90631	65	115	245	295		
50	10	50	10	0.42525	2.35154	0.46985	2.12832	1.10488	0.90507	50	10	50	10		
↑ 40	↓ 20	↑ 40	↓ 20	0.42788	2.33708	0.47341	2.11234	1.10640	0.90383	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.43051	2.32282	0.47698	2.09654	1.10793	0.90259	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.43313	2.30875	0.48055	2.08094	1.10947	0.90133	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.43575	2.29487	0.48414	2.06553	1.11103	0.90007	↑ 10	↓ 50	↑ 10	↓ 50		
334	206	154	26	0.43837	2.28117	0.48773	2.05030	1.11260	0.89879	64	116	244	296		
50	10	50	10	0.44098	2.26766	0.49134	2.03526	1.11419	0.89752	50	10	50	10		
↑ 40	↓ 20	↑ 40	↓ 20	0.44359	2.25432	0.49495	2.02039	1.11579	0.89623	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.44620	2.24116	0.49858	2.00569	1.11740	0.89493	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.44880	2.22817	0.50222	1.99116	1.11903	0.89363	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.45140	2.21535	0.50587	1.97681	1.12067	0.89232	↑ 10	↓ 50	↑ 10	↓ 50		
333	207	153	27	0.45399	2.20269	0.50953	1.96261	1.12233	0.89101	63	117	243	297		
50	10	50	10	0.45658	2.19020	0.51319	1.94858	1.12400	0.88968	50	10	50	10		
↑ 40	↓ 20	↑ 40	↓ 20	0.45917	2.17786	0.51688	1.93470	1.12568	0.88836	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.46175	2.16568	0.52057	1.92098	1.12738	0.88701	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.46433	2.15366	0.52427	1.90742	1.12910	0.88566	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.46690	2.14178	0.52798	1.89400	1.13083	0.88431	↑ 10	↓ 50	↑ 10	↓ 50		
332	208	152	28	0.46947	2.13006	0.53171	1.88073	1.13257	0.88295	62	118	242	298		
50	10	50	10	0.47204	2.11847	0.53545	1.86760	1.13433	0.88158	50	10	50	10		
↑ 40	↓ 20	↑ 40	↓ 20	0.47460	2.10704	0.53920	1.85462	1.13610	0.88020	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.47716	2.09574	0.54296	1.84177	1.13789	0.87882	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.47971	2.08458	0.54673	1.82906	1.13970	0.87743	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.48226	2.07356	0.55051	1.81649	1.14152	0.87603	↑ 10	↓ 50	↑ 10	↓ 50		
331	209	151	29	0.48481	2.06267	0.55431	1.80405	1.14335	0.87462	61	119	241	299		
50	10	50	10	0.48735	2.05191	0.55812	1.79174	1.14520	0.87321	50	10	50	10		
↑ 40	↓ 20	↑ 40	↓ 20	0.48989	2.04128	0.56194	1.77955	1.14707	0.87178	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.49242	2.03077	0.56577	1.76749	1.14896	0.87036	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.49495	2.02039	0.56962	1.75556	1.15085	0.86892	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.49748	2.01014	0.57348	1.74375	1.15277	0.86748	↑ 10	↓ 50	↑ 10	↓ 50		
330	210	150	30	0.50000	2.00000	0.57735	1.73205	1.15470	0.86603	60	120	240	300		
+	-	-	+	COS	SEC					I	II	III	IV		
-	+	-	+			COTG	TG								
-	-	+	+					COSEC	SEN						

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VALORES NATURAIS DE FUNÇÕES TRIGONÔMÉTRICAS

QUADRANTES				SEN	COSEC	TG		COTG		+	+	-	-
IV	III	II	I							+	-	+	-
										+	-	+	-
										+	-	+	-
330°	210°	150°	30°	0.50000	2.00000	0.57735	1.73205	1.15470	0.86603	60°	120°	240°	300°
50'	10'	50'	10'	0.50252	1.98998	0.58124	1.72047	1.16665	0.86457	50'	10'	50'	10'
↑ 40	↓ 20	↑ 40	↓ 20	0.50503	1.98008	0.58613	1.70901	1.15861	0.86310	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.50754	1.97029	0.58904	1.69766	1.16059	0.86163	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.51004	1.96062	0.59297	1.68643	1.16259	0.86015	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.51254	1.95106	0.59691	1.67530	1.16460	0.85866	↑ 10	↓ 50	↑ 10	↓ 50
329	211	149	31	0.51504	1.94160	0.60086	1.66428	1.16663	0.85717	59	121	239	301
50	10	50	0	0.51753	1.93226	0.60483	1.65337	1.16868	0.85567	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.52002	1.92302	0.60881	1.64256	1.17074	0.85416	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.52250	1.91388	0.61280	1.63185	1.17283	0.85264	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.52498	1.90485	0.61681	1.62125	1.17493	0.85112	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.52745	1.89591	0.62083	1.61074	1.17704	0.84959	↑ 10	↓ 50	↑ 10	↓ 50
328	212	148	32	0.52992	1.88708	0.62487	1.60034	1.17918	0.84805	58	122	238	302
50	10	50	10	0.53238	1.87834	0.62892	1.59002	1.18133	0.84650	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.53484	1.86970	0.63299	1.57981	1.18350	0.84495	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.53730	1.86116	0.63707	1.56969	1.18569	0.84339	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.53975	1.85271	0.64117	1.55966	1.18789	0.84183	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.54220	1.84435	0.64528	1.54972	1.19012	0.84025	↑ 10	↓ 50	↑ 10	↓ 50
327	213	147	33	0.54464	1.83608	0.64941	1.53987	1.19236	0.83867	57	123	237	303
50	10	50	10	0.54708	1.82790	0.65355	1.53010	1.19462	0.83708	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.54951	1.81981	0.65771	1.52043	1.19691	0.83549	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.55194	1.81180	0.66189	1.51084	1.19920	0.83389	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.55436	1.80388	0.66608	1.50133	1.20152	0.83228	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.55678	1.79605	0.67028	1.49190	1.20386	0.83066	↑ 10	↓ 50	↑ 10	↓ 50
326	214	146	34	0.55919	1.78829	0.67451	1.48256	1.20622	0.82904	56	124	236	304
50	10	50	10	0.56160	1.78062	0.67875	1.47330	1.20859	0.82741	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.56401	1.77303	0.68301	1.46412	1.21099	0.82577	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.56641	1.76552	0.68728	1.45501	1.21341	0.82413	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.56880	1.75808	0.69157	1.44598	1.21584	0.82248	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.57119	1.75073	0.69588	1.43703	1.21830	0.82082	↑ 10	↓ 50	↑ 10	↓ 50
325	215	145	35	0.57358	1.74345	0.70021	1.42815	1.22077	0.81915	55	125	235	305
50	10	50	10	0.57596	1.73624	0.70455	1.41934	1.22327	0.81748	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.57833	1.72911	0.70891	1.41061	1.22579	0.81580	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.58070	1.72205	0.71329	1.40195	1.22833	0.81412	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.58307	1.71506	0.71769	1.39336	1.23089	0.81242	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.58543	1.70815	0.72211	1.38484	1.23347	0.81072	↑ 10	↓ 50	↑ 10	↓ 50
324	216	144	36	0.58779	1.70130	0.72654	1.37638	1.23607	0.80902	54	126	234	306
50	10	50	10	0.59014	1.69452	0.73100	1.36800	1.23869	0.80730	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.59248	1.68782	0.73547	1.35968	1.24133	0.80558	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.59482	1.68117	0.73996	1.35142	1.24400	0.80386	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.59716	1.67460	0.74447	1.34323	1.24669	0.80212	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.59949	1.66809	0.74900	1.33511	1.24940	0.80038	↑ 10	↓ 50	↑ 10	↓ 50
323	217	143	37	0.60181	1.66164	0.75355	1.32705	1.25214	0.79864	53	127	233	307
50	10	50	10	0.60414	1.65526	0.75812	1.31904	1.25489	0.79688	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.60645	1.64894	0.76272	1.31111	1.25767	0.79512	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.60876	1.64268	0.76733	1.30323	1.26047	0.79335	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.61107	1.63648	0.77196	1.29541	1.26330	0.79158	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.61337	1.63035	0.77661	1.28765	1.26615	0.78980	↑ 10	↓ 50	↑ 10	↓ 50
322	218	142	38	0.61566	1.62427	0.78129	1.27994	1.26902	0.78801	52	128	232	308
50	10	50	10	0.61795	1.61825	0.78598	1.27230	1.27191	0.78622	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.62024	1.61229	0.79070	1.26471	1.27483	0.78442	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.62251	1.60639	0.79544	1.25717	1.27778	0.78261	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.62479	1.60054	0.80020	1.24969	1.28075	0.78079	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.62706	1.59475	0.80498	1.24227	1.28374	0.77897	↑ 10	↓ 50	↑ 10	↓ 50
321	219	141	39	0.62932	1.58902	0.80978	1.23490	1.28676	0.77715	51	129	231	309
50	10	50	10	0.63158	1.58334	0.81461	1.22758	1.28980	0.77531	50	10	50	10
↑ 40	↓ 20	↑ 40	↓ 20	0.63383	1.57771	0.81946	1.22031	1.29287	0.77347	↑ 40	↓ 20	↑ 40	↓ 20
↑ 30	↓ 30	↑ 30	↓ 30	0.63608	1.57213	0.82434	1.21310	1.29597	0.77162	↑ 30	↓ 30	↑ 30	↓ 30
↑ 20	↓ 40	↑ 20	↓ 40	0.63832	1.56661	0.82923	1.20593	1.29909	0.76977	↑ 20	↓ 40	↑ 20	↓ 40
↑ 10	↓ 50	↑ 10	↓ 50	0.64056	1.56114	0.83415	1.19882	1.30223	0.76791	↑ 10	↓ 50	↑ 10	↓ 50
320	220	140	40	0.64279	1.55572	0.83910	1.19175	1.30541	0.76604	50	130	230	310
+	-	-	+	COSEC	SEN					I	II	III	IV
-	+	-	+			COTG	TG						
-	-	+	+					COSEC	SEN				

TABELA 23

VALORES NATURAIS DE FUNÇÕES TRIGONÔMÉTRICAS

QUADRANTES				SEN	COSEC					+	+	-	-		
IV	III	II	I					TG	COTG			+	-	+	-
										SEC	COS	+	-	+	-
										+	-	+	-	+	-
320°	220°	140°	40°	0.64279	1.55672	0.83910	1.19175	1.30541	0.76604	50°	130°	230°	310°		
50'	10'	50'	10'	0.64501	1.55036	0.84407	1.18474	1.30861	0.76417	50'	10'	50'	10'		
↑ 40	↓ 20	↑ 40	↓ 20	0.64723	1.54504	0.84906	1.17777	1.31183	0.76229	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.64945	1.53977	0.85408	1.17085	1.31509	0.76041	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.65166	1.53455	0.85912	1.16398	1.31837	0.75851	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.65386	1.52938	0.86419	1.15715	1.32168	0.75661	↑ 10	↓ 50	↑ 10	↓ 50		
319	221	139	41	0.65606	1.52425	0.86929	1.15037	1.32501	0.75471	49	131	229	311		
50	10	50	10	0.65825	1.51918	0.87441	1.14363	1.32838	0.75280	50	10	50	10		
↑ 40	↓ 20	↑ 40	↓ 20	0.66044	1.51415	0.87955	1.13694	1.33177	0.75088	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.66262	1.50916	0.88472	1.13029	1.33519	0.74896	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.66480	1.50422	0.88992	1.12369	1.33864	0.74703	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.66697	1.49933	0.89515	1.11713	1.34212	0.74509	↑ 10	↓ 50	↑ 10	↓ 50		
318	222	138	42	0.66913	1.49448	0.90040	1.11061	1.34563	0.74314	48	132	228	312		
50	10	50	10	0.67129	1.48967	0.90568	1.10414	1.34917	0.74120	50	10	50	10		
↑ 40	↓ 20	↑ 40	↓ 20	0.67344	1.48491	0.91099	1.09770	1.35274	0.73924	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.67559	1.48019	0.91633	1.09131	1.35634	0.73728	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.67773	1.47551	0.92170	1.08496	1.35997	0.73531	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.67987	1.47087	0.92709	1.07864	1.36363	0.73333	↑ 10	↓ 50	↑ 10	↓ 50		
317	223	137	43	0.68200	1.46628	0.93251	1.07237	1.36733	0.73136	47	133	227	313		
50	10	50	10	0.68412	1.46173	0.93797	1.06613	1.37105	0.72937	50	10	50	10		
↑ 40	↓ 20	↑ 40	↓ 20	0.68624	1.45721	0.94345	1.05994	1.37481	0.72737	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.68835	1.45274	0.94896	1.05378	1.37860	0.72537	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.69046	1.44831	0.95451	1.04766	1.38242	0.72337	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.69256	1.44391	0.96008	1.04158	1.38627	0.72136	↑ 10	↓ 50	↑ 10	↓ 50		
316	224	136	44	0.69466	1.43956	0.96569	1.03553	1.39016	0.71934	46	134	226	314		
50	10	50	10	0.69675	1.43524	0.97133	1.02952	1.39408	0.71732	50	10	50	10		
↑ 40	↓ 20	↑ 40	↓ 20	0.69883	1.43096	0.97700	1.02355	1.39804	0.71529	↑ 40	↓ 20	↑ 40	↓ 20		
↑ 30	↓ 30	↑ 30	↓ 30	0.70091	1.42672	0.98270	1.01761	1.40203	0.71325	↑ 30	↓ 30	↑ 30	↓ 30		
↑ 20	↓ 40	↑ 20	↓ 40	0.70298	1.42251	0.98843	1.01170	1.40606	0.71121	↑ 20	↓ 40	↑ 20	↓ 40		
↑ 10	↓ 50	↑ 10	↓ 50	0.70506	1.41835	0.99420	1.00584	1.41012	0.70916	↑ 10	↓ 50	↑ 10	↓ 50		
315	225	135	45	0.70711	1.41421	1.00000	1.00000	1.41421	0.70711	45	135	225	315		
+	-	-	+	COS	SEC					I	II	III	IV	QUADRANTES	
-	+	-	+			COTG	TG								
-	-	+	+					COSEC	SEN						

REDUÇÃO AO 1.º QUADRANTE

2.º QUADR.	1.º QUADR.
90° - 180°	0° - 90°
sen 90+α	+ cos α
cos 90+α	- sen α
tg 90+α	- cotg α
cosec 90+α	+ sec α
sec 90+α	- cosec α
cotg 90+α	- tg α

3.º QUADR.	1.º QUADR.
180° - 270°	0° - 90°
sen 180+α	- sen α
cos 180+α	- cos α
tg 180+α	+ tg α
cosec 180+α	- cosec α
sec 180+α	- sec α
cotg 180+α	+ cotg α

4.º QUADR.	1.º QUADR.
270° - 360°	0° - 90°
sen 270+α	- cos α
cos 270+α	+ sen α
tg 270+α	- cotg α
cosec 270+α	- sec α
sec 270+α	+ cosec α
cotg 270+α	- tg α