

Inesite, a hydrated calcium manganese silicate with five-tetrahedral-repeat double chains

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Abstract

Inesite, $\text{Ca}_2\text{Mn}_7\text{Si}_{10}\text{O}_{28}(\text{OH})_2 \cdot 5\text{H}_2\text{O}$, from the Hale Creek Mine, Trinity County, California, is triclinic, space group PT , with cell dimensions $a = 8.889(2)$, $b = 9.247(2)$, $c = 11.975(3)\text{\AA}$; $\alpha = 88.15(2)$, $\beta = 132.07(2)$ and $\gamma = 96.64(2)^\circ$; $Z = 1$. The crystal structure has been determined through a combination of the three-dimensional Patterson and the symbolic addition methods. The structure has been refined by the method of least squares to an R factor of 0.032 for 4243 reflections.

The crystal structure of inesite consists of two components: (a) a polyhedral band, consisting of a sequence of seven edge-sharing Mn octahedra and two Ca pentagonal bipyramids, connected to two similar sequences on either side by edge-sharing; and (b) double silicate chains with a five-tetrahedral-repeat period, which contain alternating six- and eight-membered rings. These silicate double chains knit the adjacent Ca, Mn polyhedral bands into a three-dimensional framework. The average Ca-O distance is 2.431\AA. The average Mn-O distances within the four different Mn octahedra are 2.243, 2.217, 2.218 and 2.210\AA. The three crystallographically independent water molecules serve as apical ligands to the Ca and Mn atoms. The sites of one of the water molecules is statistically occupied half the time, accounting for five water molecules in the unit cell. All seven hydrogen atoms are involved in hydrogen bonding. The recipient of a hydrogen bond is either a water molecule or a bridging oxygen atom bonded to two silicon only. The average Si-O bond lengths within the five different Si tetrahedra are 1.621, 1.626, 1.623, 1.627 and 1.630\AA. The Si-O-Si angles range from 130.0° to 143.5° , the smaller Si-O-Si angles being associated with longer Si-O bonds and *vice versa*. The six- and eight-membered silicate rings are nearly planar.

The oriented thermal transformation of inesite to a high-calcium rhodonite at $\sim 800^\circ\text{C}$ involves considerable cation migration and breakage of Si-O bonds and is far from a simple dehydration reaction, as has been postulated.

Introduction

Single silicate chains with two-, three-, four-, five-, six-, seven-, nine-, and twelve-tetrahedral repeat are known (Liebau, 1972). These single chains can polymerize further to form double chains. A common example is the polymerization of pyroxene-type (two-tetrahedral repeat) chains into amphibole-type double chains. Likewise, wollastonite-type (three-tetrahedral repeat) single chains can polymerize into xonotlite-type double chains. However, silicate double chains with periodicities of five and seven tetrahedra have not been reported. The crystal structure of inesite provides the first example of double silicate chains with a periodicity of five tetrahedra (*Fünfer-Doppelketten*) (Wan and Ghose, 1975).

Previous work

Inesite, a hydrated calcium manganese silicate, is triclinic, crystal class T . From chemical analysis of inesite from Quinault, Washington, Glass and Schaller (1939) suggested the chemical formula $3\text{CaO} \cdot 11\text{MnO} \cdot 15\text{SiO}_2 \cdot 10\text{H}_2\text{O}$. Richmond (1942) determined the correct chemical composition as $\text{Ca}_2\text{Mn}_7\text{Si}_{10}\text{O}_{28}(\text{OH})_2 \cdot 5\text{H}_2\text{O}$, and assigned inesite to the rhodonite group of pyroxenoids on the basis of its cleavage characteristics and unit-cell dimensions. The similarity of the c cell dimensions ($\sim 12.20\text{\AA}$) between rhodonite and inesite led Liebau (1956) to postulate the presence of a silicate chain with five-tetrahedral repeat in inesite by analogy with rhodonite; Liebau further speculated that since inesite is hydrated (*cf.*

CONNECTED SCALE FACTORS)

NEW OLD
1 22970 1.00000

QUERENT EXTINCTION CORRECTION 0.

GRID SPECIFICATION-- X IN 27THS, Y IN 23RDS, Z IN 36THS.

H K L ST/L MIN MAX
19 19 25 0.000 .985

35 ATOMS LOADED FROM CARDS SUCCESSFULLY.

ATOM	X	Y	Z	POPP	MULT	POSIT	U	U11	U22	U33	U12	U13	U23
CA	.3882	.2615	.1016	1.0000	1.0000	GENL	.0205	.0120	.0073	.0042	.0073	.0007	
CA	0.0000	0.0000	0.0000	1.0000	1.0000	GENL	.0111	.0139	.0084	.0013	.0066	.0007	
MN	.0998	.0767	.7740	1.0000	1.0000	GENL	.0093	.0096	.0082	.0016	.0066	.0003	
MN	.2063	.1127	.5585	1.0000	1.0000	GENL	.0086	.0124	.0086	.0008	.0065	.0001	
MN	.3076	.1597	.3387	1.0000	1.0000	GENL	.0087	.0214	.0085	.0000	.0066	.0003	
SI	.2122	.7552	.5570	1.0000	1.0000	GENL	.0083	.0090	.0081	.0012	.0066	.0005	
SI	.0174	.6012	.2643	1.0000	1.0000	GENL	.0109	.0080	.0087	.0004	.0079	.0004	
SI	.4041	.8878	.0811	1.0000	1.0000	GENL	.0069	.0097	.0060	.0014	.0049	.0005	
SI	.3175	.8142	.2813	1.0000	1.0000	GENL	.0069	.0103	.0071	.0011	.0052	.0012	
SI	.1327	.7274	.7731	1.0000	1.0000	GENL	.0076	.0077	.0065	.0009	.0056	.0004	
SI	.6530	.2168	.0561	1.0000	1.0000	GENL	.0092	.0124	.0078	.0018	.0055	.0006	
O	.9568	.4283	.2119	1.0000	1.0000	GENL	.0069	.0074	.0071	.0011	.0052	.0012	
O	.0265	.1558	.3067	1.0000	1.0000	GENL	.0084	.0107	.0106	.0028	.0069	.0018	
O	.7920	.3069	.3140	1.0000	1.0000	GENL	.0154	.0153	.0099	.0052	.0107	.0032	
O	.9267	.1140	.5295	1.0000	1.0000	GENL	.0102	.0110	.0103	.0020	.0076	.0017	
O	.8968	.3866	.5653	1.0000	1.0000	GENL	.0221	.0113	.0114	.0008	.0128	.0008	
O	.5915	.2071	.3509	1.0000	1.0000	GENL	.0112	.0229	.0189	.0017	.0111	.0035	
O	.1636	.3038	.8471	1.0000	1.0000	GENL	.0116	.0127	.0144	.0036	.0079	.0006	
O	.7826	.3452	.7148	1.0000	1.0000	GENL	.0135	.0108	.0192	.0007	.0133	.0029	
O	.8280	.0630	.7639	1.0000	1.0000	GENL	.0098	.0108	.0192	.0007	.0133	.0029	
O	.10	.2144	.8542	1.0000	1.0000	GENL	.0129	.0126	.0121	.0027	.0080	.0011	
O	.12	.1449	.5644	1.0000	1.0000	GENL	.0075	.0147	.0117	.0005	.0103	.0008	
O	.2728	.0237	.0080	1.0000	1.0000	GENL	.0123	.0228	.0089	.0003	.0058	.0001	
O	.3535	.0736	.7880	1.0000	1.0000	GENL	.0071	.0127	.0105	.0043	.0081	.0019	
O	.1332	.2161	.1074	1.0000	1.0000	GENL	.0133	.0167	.0092	.0015	.0058	.0007	
O	.2640	.3600	.5957	1.0000	1.0000	GENL	.0222	.0157	.0137	.0043	.0098	.0021	
O	.5499	.4905	.8799	1.0000	1.0000	GENL	.0222	.0174	.0287	.0031	.0100	.0006	
O	.4024	.4159	.4399	1.0000	1.0000	GENL	.1407	.0357	.0220	.0439	.0072	.0054	
O	.0251	.2815	.0644	1.0000	1.0000	GENL	.0234	.0232	.0315	.0103	.0153	.0132	
H	.1270	.3730	.5280	1.0000	1.0000	GENL	.0443	.0443	.0443	.0443	.0443	.0443	
H	.3150	.3970	.6900	1.0000	1.0000	GENL	.0443	.0443	.0443	.0443	.0443	.0443	
H	.6400	.4330	.9500	1.0000	1.0000	GENL	.0443	.0443	.0443	.0443	.0443	.0443	
H	.4830	.4330	.7880	1.0000	1.0000	GENL	.0443	.0443	.0443	.0443	.0443	.0443	
H	.5533	.4133	.5267	1.0000	1.0000	GENL	.0401	.0401	.0401	.0401	.0401	.0401	
H	.3485	.4658	.3626	1.0000	1.0000	GENL	.0443	.0443	.0443	.0443	.0443	.0443	

LOGICAL RECORD 10, UPDATED.

LOGICAL RECORD 11, UPDATED.

LOGICAL RECORD 12, WRITTEN.

***HYPER-PHYSICAL RECORD IN WHICH LOGIC/L RECORDS BEGIN

LOG HYPY	LOG HYPV	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY
1	1	2	1	3	1	4	1	5	1	6	1	7
12	5	13	5	14	5	15	6	16	430	17	430	18
23	430	24	430	25	430							

INTERCHANGED NFILEA = 9 NFILEB = 8.

*****STORE REQUIREMENTS IN WORDS*****

CURRENT PROGRAM	PREVIOUS PROGRAM	LOADAT	CURRENT SIZE	REQUIRED SIZE	MAXIMUM SIZE	OF DATA ARRAY	OF DATA ARRAY	DATA ARRAY	SD FAR	TOTAL COPE CURRENTLY AVAILABLE	LARGEST AMOUNT COPE USED	SD FAR
FC	LOADAT	1500	302	302	302	046400	050620					

TIME ELAPSED TIME DATE
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FC CARD INPUT

TEMPERATURE FACTOR TYPE	LIST REFLECTIONS	DISPERSION CORRECTION	REFLECTION SURVEY	PARTIAL CONTRIBUTION	DIFFRACTION TYPE	UPDATE SCALE FACTORS
MIXD	YES	YES	NO	NO	XRAY	NO

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 THE FILE IS LABELED - (NO FILE LABEL
 THE PROGRAMS WHICH HAVE UPDATED AND/OR COPIED THIS FILE ARE..
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ISOTROPIC EXTINGUISHION CORRECTION 0.

SIN(THETA)/LAMBDA RANGE
 MAXIMUM H K L

0.000 .985 19 19 25

SCALE FACTORS
 1 .22970

INDIVIDUAL ATOM PARAMETERS
 *** THERMAL VALUES LISTED ARE MULTIPLIED BY 100***

ATOM	X	Y	Z	POP.	PAR.	MULT.	U DP U11	U22	U33	U12	U13	U23
CA	.388230	.261540	.101640	1.000000	1.000	1.000	2.04931	1.20060	.74540	.41600	.73450	.06520
MN 1	0.000000	0.000000	0.000000	1.000000	.500	1.000	1.10870	1.38901	.83920	.12930	.66300	.06940
MN 2	.099780	.076650	.774040	1.000000	1.000	1.000	.93150	.95730	.82930	.15700	.65700	.06010
MN 3	.206330	.112730	.558630	1.000000	1.000	1.000	.86490	1.23540	.85580	.07510	.64880	.01060
MN 4	.307560	.159730	.338740	1.000000	1.000	1.000	.87390	2.18111	.84680	.00420	.65600	.03180
SI	.212190	.755240	.556990	1.000000	1.000	1.000	.82700	.90220	.81150	.12170	.66230	.05310

INDIVIDUAL ATOM PARAMETERS

*** THERMAL VALUES LISTED ARE MULTIPLIED BY 100***

ATOM	X	Y	Z	POP.	PAR.	MULT.	U OR U11	U22	U33	U12	U13	U23
SI 2	.017350	.601190	.254290	1.000000	1.000	1.000	1.089540	.00340	.06850	.03660	.78950	.03800
SI 3	.404050	.887790	.081090	1.000000	1.000	1.000	.692280	.96680	.59940	.13500	.49080	.04770
SI 4	.317480	.814190	.291340	1.000000	1.000	1.000	.69310	.102890	.71370	.10800	.52230	.12100
SI 5	.132710	.727390	.773090	1.000000	1.000	1.000	.75860	.76510	.65160	.08510	.55540	.03660
C 1	.652980	.216750	.056050	1.000000	1.000	1.000	.92320	1.24170	.77620	.18170	.55410	.06000
C 2	.956830	.428250	.211900	1.000000	1.000	1.000	2.03611	.74000	1.56681	.14250	1.56411	.08590
C 3	.026520	.155790	.309700	1.000000	1.000	1.000	.84030	1.07140	1.06230	.27790	.69430	.18210
C 4	.792040	.306860	.313980	1.000000	1.000	1.000	1.53891	1.52571	.98690	.27790	.69430	.18210
C 5	.926730	.114010	.529540	1.000000	1.000	1.000	1.02380	1.10150	.98690	.51700	1.06500	.31960
C 6	.898330	.386550	.565280	1.000000	1.000	1.000	2.20571	1.12910	1.14280	.08370	.76090	.16890
C 7	.351500	.207090	.350870	1.000000	1.000	1.000	1.11800	1.12910	1.14280	.08370	1.27581	.02690
C 8	.153600	.303830	.847110	1.000000	1.000	1.000	1.11800	2.28531	1.88751	.17190	1.11280	.35070
C 9	.782620	.345140	.714790	1.000000	1.000	1.000	1.16160	1.27341	1.43751	.36340	.78870	.06220
O 10	.829020	.062990	.763920	1.000000	1.000	1.000	.98090	1.07990	1.92251	.06510	1.33361	.29090
O 11	.683960	.214440	.554170	1.000000	1.000	1.000	1.28701	1.46591	1.20790	.27380	.80000	.11280
O 12	.451190	.144840	.564390	1.000000	1.000	1.000	.75480	2.27591	.88640	.04840	1.03030	.07900
O 13	.272780	.023650	.007990	1.000000	1.000	1.000	1.22990	1.26771	1.04820	.02570	.58110	.01290
O 14	.353460	.073550	.787980	1.000000	1.000	1.000	.71470	1.67451	.91670	.43090	.80530	.18770
O 15	.133210	.4216080	.107420	1.000000	1.000	1.000	1.32791	1.67291	1.37651	.14640	.57550	.06600
O 16	.264000	.359960	.595730	1.000000	1.000	1.000	2.21721	1.73891	2.86621	.43340	.98080	.20770
O 17	.549650	.490480	.979850	1.000000	1.000	1.000	1.407036	3.56531	2.20351	.31380	.99980	.08380
O 18	.402400	.415850	.439900	1.000000	1.000	1.000	2.33651	2.31901	3.15421	4.39012	.72210	.54280
O 19	.025110	.281450	.064390	1.000000	1.000	1.000	4.43000			1.02500	1.53051	1.31771
H 2	.127000	.373000	.528000	1.000000	1.000	1.000	4.43000					
H 3	.315000	.397000	.690000	1.000000	1.000	1.000	4.43000					
H 4	.640000	.433000	.950000	1.000000	1.000	1.000	4.43000					
H 5	.483000	.433000	.788000	1.000000	1.000	1.000	4.43000					
H 6	.553330	.413250	.526670	1.000000	1.000	1.000	4.01000					
H 7	.348460	.465820	.362620	1.000000	1.000	1.000	4.43000					

↑	↓	L	OSR	FN	FC	A	P	SINTW/LW	CF	W*OP	ANGLE CALC	ANGLE STAT
0	0	1	1	15.93	19.97	-19.94	-1.49	.05636	-.98	-5.70	182	
0	0	1	1	41.95	44.07	-44.07	-2.27	.11271	-2.11	-6.53	182	
0	0	1	1	3.39	.78	-.44	.63	.16907	2.40	5.48	191	
0	0	1	1	39.35	42.81	42.80	.91	.22543	-3.45	-10.51	125	
0	0	1	1	10.67	9.72	-9.70	.74	.28178	.96	4.16	175	
0	0	1	1	69.87	60.17	-60.17	-.57	.33814	.70	1.25	181	
0	0	1	1	14.23	14.72	14.72	-.32	.39449	-.50	-1.96	354	
0	0	1	1	14.85	15.75	-15.75	-.32	.45085	-.99	-3.20	182	
0	0	1	1	93.25	94.88	94.76	4.74	.50721	-1.63	-2.21	2	
0	0	1	1	15.03	14.32	-14.29	-.95	.56356	.74	2.35	184	
0	0	1	1	17.76	17.47	17.46	.55	.61992	.30	.91	1	
0	0	1	1	10.05	9.97	9.91	1.06	.67628	.10	.19	6	
0	0	1	1	14.79	15.07	15.03	1.16	.67514	-.28	-.72	4	
0	0	1	1	8.55	9.83	9.83	-.07	.61898	-.27	-.51	0	
0	0	1	1	27.51	28.19	28.19	-.49	.56286	-.69	-2.63	0	
0	0	1	1	49.05	49.98	49.47	3.30	.50680	-.53	-1.40	3	
0	0	1	1	67.89	68.07	-68.06	-1.36	.45081	-.18	-.37	182	
0	0	1	1	4.99	4.82	-4.81	.11	.39493	.18	.29	178	
0	0	1	1	35.13	34.38	34.83	.28	.33920	.25	.83	0	
0	0	1	1	28.10	28.59	-29.57	-.91	.28371	-.48	-2.10	182	
0	0	1	1	136.42	131.36	131.31	3.55	.22866	5.05	11.32	1	
0	0	1	1	60.14	58.80	58.79	1.05	.17444	1.34	3.38	1	
0	0	1	1	27.05	26.24	26.24	-.01	.12217	.82	3.09	0	
0	0	1	1	13.60	12.66	12.65	-.12	.07599	.94	6.21	0	
0	0	1	1	129.94	126.70	126.64	3.89	.05454	3.24	10.59	1	
0	0	1	1	6.43	8.12	8.08	.81	.08079	-1.64	-9.55	355	
0	0	1	1	27.05	29.43	29.43	.21	.12818	-2.38	-8.87	0	
0	0	1	1	7.88	7.05	-7.05	-.10	.18080	.84	3.61	181	
0	0	1	1	32.59	30.86	-30.85	-.91	.23515	1.72	5.00	132	
0	0	1	1	90.80	92.91	92.83	3.93	.29027	-2.11	-4.12	191	
0	0	1	1	16.11	16.71	-16.71	-.15	.34579	-.60	-2.74	2	
0	0	1	1	28.37	29.38	-29.37	-.30	.40154	-1.01	-3.78	181	
0	0	1	1	46.39	46.73	46.72	.90	.45744	-.35	-.84	1	
0	0	1	1	56.95	55.97	55.88	3.09	.51344	.98	1.83	3	
0	0	1	1	33.52	33.88	-33.87	-.81	.56951	-.35	-1.08	182	
0	0	1	1	3.02	.52	.50	.12	.62563	2.51	1.87	13	
0	0	1	1	6.84	5.58	5.58	.08	.68179	1.26	1.80	0	
0	0	1	1	18.66	17.35	17.35	.25	.67839	1.31	3.84	0	
0	0	1	1	11.23	11.12	-11.10	-.56	.62283	.12	.27	183	
0	0	1	1	3.02	1.84	1.78	-.49	.56743	1.17	.98	345	
0	0	1	1	19.55	19.56	19.54	.94	.51223	-.02	-.07	2	
0	0	1	1	59.32	60.51	60.50	1.08	.45732	-1.19	-2.41	1	
0	0	1	1	10.81	9.51	9.42	1.35	.40281	1.29	4.11	8	
0	0	1	1	13.19	12.14	12.12	.56	.34888	1.05	4.29	2	
0	0	1	1	14.81	15.89	-15.84	-1.27	.29586	-1.09	-5.32	185	
0	0	1	1	169.46	169.72	169.64	5.00	.24434	-.26	-.55	1	
0	0	1	1	6.00	6.43	-6.42	-.33	.19551	-.43	-1.44	183	
0	0	1	1	33.69	35.20	-35.20	-.51	.15198	-1.51	-5.44	181	
0	0	1	1	3.18	4.12	4.12	-.11	.11967	-.94	-2.00	359	
0	0	1	1	73.53	72.70	-72.70	.19	.10908	.82	2.69	179	
0	0	1	1	51.76	54.24	54.22	1.30	.12580	-2.48	-7.29	1	
0	0	1	1	68.28	69.61	69.60	1.04	.16158	-1.33	-3.54	0	
0	0	1	1	3.82	.83	-.80	.21	.20674	2.99	6.38	164	
0	0	1	1	7.45	8.53	-8.50	-.75	.25637	-1.08	-3.60	186	
0	0	1	1	161.15	162.95	162.86	5.36	.30832	-1.80	-3.44	1	
0	0	1	1	12.14	11.03	11.02	-.35	.36160	1.11	4.15	359	

7609

Y	X	L	GRP	FD	FC	A	F	SINTH/LW	DF	W*DF
1	3	7	1	9.45	9.53	-9.53	-1.15	.41569	-.08	-.22
2	3	6	1	8.06	7.51	-7.50	.35	.47030	.55	1.25
3	3	0	1	19.10	18.61	-18.60	-.15	.52529	.50	1.81
4	3	10	1	21.64	21.27	-21.34	2.15	.58054	.26	.92
5	3	11	1	6.21	5.43	5.43	.04	.63599	.89	1.27
6	3	12	1	3.75	4.85	-4.85	-.29	.69158	-1.10	-.85
7	3	11	1	5.44	6.03	-6.01	-.49	.68529	-.57	-.66
8	3	11	1	9.55	7.56	7.55	.52	.63139	1.99	4.07
9	3	10	1	2.64	2.52	2.50	.34	.57713	.12	.08
0	3	10	1	5.10	2.62	2.57	-.51	.52332	2.47	3.69
1	3	10	1	102.82	103.67	103.60	-1.55	.47011	-.85	-1.23
2	3	10	1	48.19	48.65	48.62	1.55	.41772	-.46	-1.19
3	3	10	1	10.29	10.31	10.31	-.04	.36652	-.02	-.06
4	3	10	1	55.04	56.51	-56.49	-1.49	.31706	-1.47	-3.75
5	3	10	1	92.23	97.25	97.18	3.35	.27032	-3.01	-6.07
6	3	10	1	46.83	45.71	-46.79	-.93	.22796	.12	.25
7	3	10	1	6.30	4.92	-4.91	.20	.19292	1.39	5.02
8	3	10	1	83.61	83.64	-83.64	-.15	.16976	-.03	-.02
9	3	10	1	50.43	49.91	-49.90	-1.22	.16362	.52	1.35
0	3	10	1	191.79	196.58	196.52	4.63	.17628	-4.79	-12.42
1	3	10	1	5.44	7.12	7.05	.95	.20429	-1.63	-4.85
2	3	10	1	35.44	35.20	35.20	-.08	.24237	3.24	9.35
3	3	10	1	15.52	15.52	15.52	-.31	.28654	1.00	5.17
4	3	10	1	159.79	164.87	164.83	3.74	.33439	-5.08	-9.22
5	3	10	1	12.99	13.17	-13.16	-.62	.38455	-.18	-.45
6	3	10	1	18.42	17.67	-17.67	-.15	.43623	.74	2.99
7	3	10	1	24.42	24.07	-24.07	-.17	.48895	.33	1.40
8	3	10	1	13.97	14.41	-14.37	-1.02	.54239	-.44	-1.31
9	3	10	1	53.04	52.26	-52.14	3.59	.59638	.78	1.50
0	3	10	1	19.62	18.96	-18.96	-.24	.65076	.65	1.96
1	3	10	1	8.67	9.29	9.26	.77	.69777	-.63	-1.06
2	3	10	1	14.48	14.78	14.69	1.68	.64446	-.30	-.80
3	3	10	1	2.26	1.75	1.64	.59	.59173	.51	.32
4	3	10	1	9.88	10.42	10.34	-1.31	.53973	-.54	-1.34
5	3	10	1	12.82	12.40	-12.40	4.01	.48869	-2.10	-2.96
6	3	10	1	18.39	17.72	-17.71	-.53	.43895	.42	1.38
7	3	10	1	7.35	8.57	8.55	-.30	.39102	.67	2.99
8	3	10	1	8.26	9.28	9.25	.73	.34564	-1.21	-3.37
9	3	10	1	6.36	7.59	-7.54	.86	.30395	-1.02	-3.43
0	3	10	1	34.21	35.04	35.00	1.66	.26769	-1.24	-3.61
1	3	10	1	54.01	40.75	-40.72	-.67	.22195	2.03	4.54
2	3	10	1	36.99	46.75	46.66	4.66	.21816	-3.76	-11.53
3	3	10	1	181.49	183.61	183.56	4.66	.22863	-2.12	-4.79
4	3	10	1	18.89	17.48	-17.48	-.13	.25161	1.40	4.79
5	3	10	1	4.67	2.91	-2.90	-.27	.28406	1.76	3.78
6	3	10	1	33.05	34.16	-34.16	-.28	.32316	-1.11	-3.79
7	3	10	1	21.71	8.70	8.70	.21	.36677	13.01	57.79
8	3	10	1	60.55	62.98	62.96	1.60	.41347	-2.43	-5.29
9	3	10	1	19.83	19.74	19.72	.98	.46234	.09	.34
0	3	10	1	7.61	6.98	-6.98	-.09	.51274	.63	1.30
1	3	10	1	12.19	13.26	13.26	-.45	.56427	-1.07	-2.87
2	3	10	1	54.60	53.75	-53.59	4.21	.61664	.85	1.95
3	3	10	1	15.73	15.33	-15.32	-.95	.66966	.45	1.18
4	3	10	1	28.65	29.18	29.14	1.55	.66179	-.53	-1.81
5	3	10	1	9.41	10.93	-10.93	-.14	.61086	-1.52	-3.12

ANGLE
CALC
STAT

ANGLE	ANGLE
CALC	STAT
191	181
177	181
181	181
3	3
0	0
184	184
185	185
3	3
7	7
349	349
2	2
1	1
0	0
182	182
1	1
182	182
177	177
181	181
182	182
1	1
7	7
0	0
359	359
1	1
183	183
181	181
181	181
185	185
3	3
181	181
4	4
6	6
19	19
353	353
2	2
181	181
182	182
359	359
4	4
2	2
173	173
0	0
182	182
1	1
0	0
186	186
181	181
1	1
2	2
191	191
359	359
4	4
183	183
3	3
181	181

NO	K	L	SRP	EQ	FC	A	B	SINTH/LM	DF	W+DF	ANGLE CALC	ANGLE STAT
0	7	-9	1	50.64	52.01	-51.96	-2.24	.56097	-1.33	-3.65	183	
0	5	-4	1	34.76	35.22	35.13	2.45	.51242	-1.46	-1.75	183	
0	5	-7	1	29.77	24.97	24.97	.00	.46564	-1.20	-5.05	0	
0	5	-6	1	6.23	5.29	-5.25	.68	.42120	.94	1.94	172	
0	5	-2	1	57.24	56.64	56.64	.64	.37994	-1.40	-3.21	0	
0	5	-4	1	19.45	20.21	-20.19	-.90	.34301	-.73	-3.58	183	
0	5	-3	1	143.20	148.69	148.69	4.00	.31192	-5.50	-10.32	1	
0	5	-2	1	18.11	17.12	17.02	1.26	.28842	.99	5.36	4	
0	5	-1	1	19.26	17.05	17.05	-.04	.27506	2.21	11.07	0	
0	5	0	1	13.54	13.58	-13.51	-1.35	.27270	-.04	-.19	186	
0	5	0	1	6.42	8.39	8.07	2.31	.28182	-1.97	-5.49	15	
0	5	1	1	7.99	7.49	-7.46	-.64	.30138	.40	1.26	185	
0	5	2	1	4.54	1.40	1.31	.50	.32953	3.14	5.72	20	
0	5	3	1	35.04	37.74	37.76	.58	.36429	-2.72	-8.53	0	
0	5	4	1	56.93	57.97	-57.95	-1.54	.40395	-1.04	-2.29	182	
0	5	5	1	77.03	77.60	77.49	4.09	.44720	-.57	-.85	3	
0	5	6	1	53.10	52.67	52.65	1.26	.49311	.43	1.02	1	
0	5	7	1	14.49	14.09	14.09	.13	.54100	.40	1.22	0	
0	5	8	1	14.93	14.68	-14.67	-.54	.59039	.25	.73	183	
0	5	9	1	17.48	16.31	15.19	2.02	.64092	1.17	3.42	7	
0	5	10	1	12.33	11.60	11.60	-.06	.69236	.74	1.61	0	
0	5	11	1	7.81	9.74	-9.74	.05	.68304	-1.93	-3.09	179	
0	5	-10	1	2.37	.49	.49	-.03	.63412	1.88	1.11	358	
0	5	-9	1	34.05	35.25	-35.24	-1.02	.58653	-1.21	-4.77	182	
0	5	-8	1	3.60	2.82	2.74	.67	.54063	.78	.84	166	
0	5	-7	1	58.85	60.61	60.59	1.52	.49689	-1.74	-4.13	1	
0	5	-6	1	73.07	75.42	75.38	2.39	.45593	-2.35	-4.95	1	
0	5	-5	1	10.63	11.63	-11.61	.67	.41856	-.95	-2.92	176	
0	5	-4	1	41.30	42.76	-42.70	-2.10	.38583	-1.46	-4.53	183	
0	5	-3	1	168.64	174.40	174.35	4.43	.35902	-5.76	-9.95	1	
0	5	-2	1	15.77	16.71	16.71	.04	.33952	-.94	-4.31	0	
0	5	-1	1	46.08	45.70	-45.70	-.55	.32863	.38	.93	181	
0	5	0	1	47.21	48.09	-48.08	-.88	.32723	-.88	-2.20	182	
0	5	0	1	35.60	37.53	37.52	.53	.33543	-1.93	-5.60	0	
0	5	1	1	7.20	8.12	7.99	1.46	.35257	-.92	-2.34	10	
0	5	2	1	10.47	10.97	10.88	1.45	.37741	-.51	-1.63	7	
0	5	3	1	10.90	13.16	-13.16	.43	.40857	-2.27	-6.85	178	
0	5	4	1	26.70	27.41	-27.37	-1.39	.44472	-.70	-2.57	183	
0	5	5	1	93.86	92.79	92.69	4.33	.48473	1.08	1.52	2	
0	5	6	1	6.45	7.87	7.87	-.19	.52774	-1.42	-2.31	359	
0	5	7	1	10.34	10.13	10.13	-.13	.57307	.22	.51	0	
0	5	8	1	23.70	23.52	-23.52	-.34	.62021	.18	.60	181	
0	5	9	1	18.71	18.38	18.38	.05	.66878	.33	.92	0	
0	5	10	1	8.72	8.90	8.84	1.02	.66107	-.18	-.33	6	
0	5	-10	1	21.81	21.73	21.71	.96	.61587	.08	.26	2	
0	5	-9	1	19.18	19.33	-19.30	-.91	.57266	-.15	-.50	183	
0	5	-8	1	33.89	34.19	34.11	2.39	.53192	-.30	-1.18	4	
0	5	-7	1	31.33	32.75	32.71	1.50	.49425	-1.42	-5.93	2	
0	5	-6	1	4.65	4.02	4.02	-.02	.46041	.63	.97	0	
0	5	-5	1	2.44	1.86	-.42	-1.81	.43131	.59	.49	257	
0	5	-4	1	44.47	41.67	41.61	2.21	.40796	2.80	7.35	3	
0	5	-3	1	9.60	9.10	-9.10	-.06	.39139	.50	1.50	181	
0	5	-2	1	10.99	11.58	11.53	1.02	.38248	-.59	-2.03	5	
0	5	-1	1	11.05	11.85	11.82	.84	.38177	-.90	-2.65	4	
0	5	0	1	16.44	16.54	-16.50	-1.07	.38931	-.10	-.42	184	
0	5	1	1	62.47	62.40	62.31	3.38	.40463	.07	.11	3	

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	Y	L	GR	FD	FC	A	B	STH/LW	DF	W*OF	ANGLE CALC	ANGLE STAT
1	10	2	1	6.53	5.23	5.53	.14	.56363	.99	1.64	1	
2	10	3	1	23.79	30.01	29.96	1.72	.59080	-1.22	-4.39	3	
3	10	4	1	26.60	26.60	26.53	1.85	.50276	.00	.01	4	
4	10	5	1	7.19	9.96	-9.94	.61	.62902	-1.80	-2.69	3	
5	10	6	1	21.39	27.57	-20.49	-1.84	.65907	.82	2.43	176	
6	10	7	1	23.66	22.79	22.68	2.30	.59240	.87	2.59	186	
7	10	8	1	21.92	21.74	-21.80	-1.28	.59754	-0.01	-0.04	5	
8	10	9	1	29.57	29.05	29.01	1.49	.67038	.53	1.82	184	
9	10	10	1	4.27	1.33	1.07	.79	.64701	2.94	3.11	2	
0	10	11	1	16.41	16.27	16.26	.46	.62783	.14	.42	36	
1	10	12	1	39.30	38.30	-38.25	-2.09	.61325	1.00	2.98	184	
2	10	13	1	2.57	2.74	2.45	1.23	.60361	-1.17	-0.11	26	
3	10	14	1	8.41	6.42	-6.41	.31	.59913	1.99	4.01	177	
4	10	15	1	18.93	19.82	19.75	1.60	.59993	-0.99	-3.11	4	
5	10	16	1	30.44	30.26	30.24	1.30	.60600	.18	.60	2	
6	10	17	1	21.10	21.29	-21.24	-1.45	.61717	-0.10	-0.61	184	
7	10	18	1	43.30	43.07	43.01	2.32	.63318	.23	.60	3	
8	10	19	1	11.99	11.75	11.71	1.05	.65367	.23	.52	5	
9	10	20	1	15.79	15.18	15.18	.38	.67824	.61	1.52	1	
0	10	21	1	8.68	9.03	9.01	.46	.69653	-0.34	-0.63	2	
1	10	22	1	3.32	.83	-0.10	.83	.67903	2.49	1.96	96	
2	10	23	1	16.86	16.42	-16.42	-0.31	.66586	.44	1.21	182	
3	10	24	1	8.40	7.44	7.44	.28	.65727	.96	1.65	2	
4	10	25	1	14.35	13.69	13.65	1.09	.65344	.67	1.70	4	
5	10	26	1	21.51	21.49	21.42	.73	.65447	.02	.07	4	
6	10	27	1	5.95	5.99	-5.95	.69	.66032	-0.03	-0.03	4	
7	10	28	1	43.71	43.43	-43.36	-2.34	.67087	.28	.72	173	
8	10	29	1	32.14	31.66	31.60	1.86	.68590	.48	1.63	184	
9	10	30	1	24.07	24.76	24.71	1.63	.70343	-0.59	-2.13	3	
0	10	31	1	4.79	5.97	-5.96	.43	.70327	-1.19	-1.19	175	
1	10	32	1	20.56	22.02	21.97	1.45	.68357	-1.46	-4.29	3	
2	10	33	1	31.46	32.43	32.40	1.47	.66806	-0.97	-3.32	3	
3	10	34	1	6.97	8.03	8.03	.07	.65703	-1.06	-1.61	0	
4	10	35	1	12.81	13.03	-13.03	-0.08	.65071	.22	.54	181	
5	10	36	1	9.82	9.30	9.26	.88	.64924	.52	1.07	5	
6	10	37	1	15.87	16.16	16.15	.52	.65265	.29	.90	1	
7	10	38	1	32.55	32.40	32.36	1.67	.66086	.15	.53	2	
8	10	39	1	25.72	26.12	-26.00	-2.49	.67371	-0.40	-1.33	186	
9	10	40	1	2.46	3.76	-3.69	.71	.69092	-1.29	-0.73	169	
0	10	41	1	22.37	22.65	-22.59	-1.58	.67724	-0.28	-0.86	185	
1	10	42	1	40.59	41.63	41.61	1.33	.65219	-1.05	-3.33	1	
2	10	43	1	23.47	24.43	24.38	1.54	.63120	-0.96	-3.23	3	
3	10	44	1	6.86	6.25	-6.23	.39	.61467	.61	1.02	176	
4	10	45	1	5.32	3.70	3.53	1.10	.60297	1.61	2.22	17	
5	10	46	1	19.73	19.88	-19.81	-1.73	.59639	-0.16	-0.52	185	
6	10	47	1	6.23	6.08	-6.08	.13	.59510	.16	.25	178	
7	10	48	1	4.76	5.39	-5.35	.66	.59914	-0.62	-0.79	172	
8	10	49	1	49.86	50.50	50.46	2.05	.60838	-0.64	-1.64	2	
9	10	50	1	18.65	19.76	-19.69	-1.66	.62262	.19	.61	185	
0	10	51	1	19.48	19.29	19.26	1.13	.64150	1.19	3.54	3	
1	10	52	1	33.20	34.62	34.57	1.89	.66464	-1.42	-5.00	3	
2	10	53	1	25.31	26.12	26.11	.86	.69161	-0.81	-2.60	3	
3	10	54	1	38.77	39.03	38.99	1.81	.69273	-0.25	-0.81	1	
4	10	55	1	39.06	41.75	41.70	2.02	.65898	-0.68	-2.04	2	
5	10	56	1	12.75	12.34	-12.34	-0.31	.62848	.40	1.01	2	
6	10	57	1	21.42	22.12	22.11	.22	.60172	-0.69	-2.35	0	

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H	K	L	GRF	FD	FC	A	B	SINTH/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
1	-10	-4	1	11.00	11.95	11.94	.53	.57922	-.95	-2.37	2	
1	-10	-3	1	3.15	2.67	-2.67	-.03	.56150	.48	.44	181	
1	-10	-2	1	2.92	2.59	1.83	1.84	.54901	.33	.28	45	
1	-10	-1	1	30.47	32.53	-32.45	-2.34	.54213	-1.86	-6.98	185	
1	-10	0	1	12.59	12.37	12.34	.81	.54105	.23	.65	3	
1	-10	1	1	15.47	14.45	14.36	1.66	.54583	.97	3.26	6	
1	-10	2	1	20.68	21.28	21.23	1.36	.55630	-.59	-2.15	3	
1	-10	3	1	2.15	2.47	2.45	.32	.57216	-.33	-.21	7	
1	-10	4	1	34.32	35.53	35.53	.41	.59297	-1.21	-4.59	0	
1	-10	5	1	3.14	2.91	-1.14	.60	.61824	2.51	2.23	103	
1	-10	6	1	4.95	2.91	2.88	.35	.64743	2.04	2.59	6	
1	-10	7	1	29.55	25.77	28.71	1.79	.68005	.78	2.66	3	
1	-9	-8	1	3.00	1.60	-1.53	.44	.68776	1.40	.91	163	
1	-9	-7	1	9.70	10.62	10.57	1.00	.64916	-.92	-1.84	5	
1	-9	-6	1	7.14	8.40	8.39	.43	.61332	-1.27	-2.12	2	
1	-9	-5	1	40.31	41.57	41.54	1.64	.58974	-1.26	-3.59	2	
1	-9	-4	1	35.82	37.10	-37.06	-1.69	.55201	-1.28	-4.06	183	
1	-9	-3	1	7.18	7.10	-7.10	-.14	.52776	.07	.15	182	
1	-9	-2	1	18.81	19.72	19.69	1.09	.50861	-.90	-3.35	3	
1	-9	-1	1	67.65	71.02	70.96	3.09	.49518	-3.37	-6.52	2	
1	-9	0	1	20.59	20.69	-20.64	-1.51	.48792	-.10	-.40	185	
1	-9	1	1	2.09	3.00	2.88	.84	.48711	-.91	-.61	16	
1	-9	2	1	28.82	28.57	28.52	1.63	.49279	.25	.94	3	
1	-9	3	1	36.67	10.02	-10.01	.27	.50474	-.35	-.95	178	
1	-9	4	1	34.61	37.52	37.48	1.72	.52553	-1.37	-4.59	2	
1	-9	5	1	3.25	36.11	-36.05	-2.03	.54558	-1.50	-4.80	184	
1	-9	6	1	21.06	.81	.81	.08	.57327	2.44	2.35	5	
1	-9	7	1	35.21	36.01	35.95	1.10	.60495	.18	.62	3	
1	-9	8	1	2.66	4.01	3.84	-1.14	.64004	-.79	-2.77	3	
1	-9	9	1	28.20	28.00	-27.99	-.67	.69115	-.34	-.83	344	
1	-8	-10	1	17.05	17.09	-17.09	-.30	.64816	-.04	-.11	182	
1	-8	-9	1	8.36	9.29	-9.29	-.14	.60736	-.94	-1.72	181	
1	-8	-8	1	3.93	2.77	2.76	-.18	.56922	1.16	1.24	357	
1	-8	-7	1	47.13	49.31	49.21	3.14	.53432	-2.18	-5.53	3	
1	-8	-6	1	46.83	48.97	-48.92	-2.04	.50332	-2.13	-5.62	183	
1	-8	-5	1	40.84	41.76	41.75	.93	.47698	-.92	-2.79	1	
1	-8	-4	1	58.98	61.48	61.44	2.12	.45612	-2.50	-5.11	1	
1	-8	-3	1	76.96	81.06	81.02	2.28	.44151	-4.10	-6.13	1	
1	-8	-2	1	15.36	16.42	-16.42	-.12	.43379	-1.06	-4.10	181	
1	-8	-1	1	7.75	8.70	8.70	-.14	.44332	-.95	-2.30	0	
1	-8	0	1	8.31	8.11	-8.11	.12	.44013	.20	.54	179	
1	-8	1	1	23.93	24.36	-24.35	-.22	.45388	-.43	-1.90	181	
1	-8	2	1	32.41	34.02	33.92	2.65	.47398	-1.61	-5.69	4	
1	-8	3	1	42.55	43.08	-43.00	-2.66	.49966	-.53	-1.58	184	
1	-8	4	1	19.69	20.59	20.58	.80	.53010	-.90	-3.40	2	
1	-8	5	1	40.76	41.10	41.05	2.01	.56455	-.34	-1.00	2	
1	-8	6	1	48.43	49.13	49.10	1.73	.60230	-.70	-1.81	2	
1	-8	7	1	5.36	6.07	6.06	.47	.64279	-.72	-.95	4	
1	-8	8	1	5.20	6.29	-6.29	-.16	.68552	-1.09	-1.27	182	
1	-8	9	1	14.36	14.38	-14.38	-.10	.70279	-.02	-.04	181	
1	-7	-10	1	4.58	1.23	.04	1.23	.65602	3.35	3.51	88	
1	-7	-9	1	10.76	11.19	-11.15	-.86	.61087	-.43	-.96	185	
1	-7	-8	1	22.99	22.63	-22.63	-.46	.56773	.35	1.28	182	
1	-7	-7	1	10.12	9.96	9.92	.85	.52708	.16	.42	4	
1	-7	-6	1	93.17	94.86	94.78	3.85	.48956	-1.69	-2.37	2	

NO	TYPE	FC	A	B	SINHL/W	DF	WADF	ANGLE CALC	ANGLE STAT
1	-7	2.11	2.44	-2.15	-1.19	.45594	-.35	-.23	182
1	-7	21.92	22.17	22.15	.90	.42713	-.25	-1.19	210
1	-7	39.12	40.93	40.91	1.36	.40417	-1.82	-5.45	2
1	-7	7.35	8.99	8.99	.19	.38810	-1.64	-4.12	1
1	-7	3.62	4.51	4.19	1.66	.37978	-.89	-1.27	1
1	-7	2.77	4.48	4.22	-1.52	.37974	-1.71	-1.84	21
1	-7	31.19	33.36	33.36	-.05	.38797	-2.16	-7.92	341
1	-7	17.92	19.53	19.50	1.11	.40398	-.61	-2.70	3
1	-7	6.71	6.05	5.41	2.72	.42687	.65	1.52	26
1	-7	9.50	9.30	9.23	-1.18	.45563	.20	.56	188
1	-7	40.96	41.75	41.74	1.21	.48921	-.79	-2.39	1
1	-7	5.96	5.70	5.57	1.19	.52669	.26	.45	167
1	-7	17.10	17.35	-17.35	-.02	.56731	-.25	-.84	181
1	-7	33.42	33.63	33.57	1.99	.61043	-.20	-.77	3
1	-7	3.89	1.51	.13	-1.51	.65956	2.38	2.26	275
1	-7	13.70	13.40	-13.40	-.23	.70232	.30	.70	181
1	-6	18.92	19.63	-19.62	-.58	.67243	-.72	-2.05	182
1	-5	77.26	77.06	76.96	3.81	.62369	.20	.33	2
1	-5	5.44	6.34	-6.28	-.92	.57633	.09	.15	189
1	-6	5.08	6.95	-6.95	.19	.53074	-1.87	-2.55	178
1	-6	7.32	6.39	-6.30	1.06	.48741	.93	1.88	170
1	-6	53.21	54.11	54.07	2.11	.44699	-.91	-1.86	2
1	-6	34.31	36.78	36.78	-.20	.41035	-.247	-8.82	182
1	-6	25.55	25.36	-25.35	-.58	.37858	.20	.81	182
1	-6	13.96	14.63	-14.63	-.41	.35300	-.67	-2.84	239
1	-6	2.71	2.20	-.11	-.17	.33504	-.04	2.89	177
1	-6	135.97	144.01	143.94	4.45	.32595	-8.04	-14.77	1
1	-6	61.46	64.88	-64.84	-2.13	.32648	-3.42	-6.13	182
1	-6	9.34	10.15	-10.14	.50	.33658	-.61	-2.25	177
1	-6	80.92	85.41	85.38	2.38	.35544	-4.49	-7.76	1
1	-6	66.29	69.72	69.69	1.94	.38175	-3.43	-5.64	1
1	-6	16.33	15.97	-15.97	.21	.41411	.36	1.50	179
1	-6	45.03	46.86	-46.86	-.67	.45121	-1.84	-4.55	181
1	-6	2.04	1.77	1.77	.01	.49199	.27	.19	181
1	-6	29.61	30.19	-30.19	-.34	.53559	-.58	-2.33	181
1	-6	32.35	33.00	32.88	2.84	.58140	.66	-2.10	4
1	-6	11.13	11.20	-11.01	-2.02	.62892	.07	-1.16	191
1	-6	27.44	26.24	26.23	.77	.67779	1.19	.00	1
1	-6	12.87	13.37	13.36	.16	.69678	-.50	-1.11	0
1	-5	33.97	34.37	34.36	.80	.64526	-.41	-1.45	1
1	-5	80.73	81.05	80.95	4.08	.59461	-.33	-.56	2
1	-5	30.36	30.59	-30.56	-1.40	.45458	-.23	-.83	183
1	-5	32.34	33.53	33.52	.49	.49700	-.32	-1.07	0
1	-5	12.92	13.24	13.23	.45	.45085	-.40	-.87	1
1	-5	49.96	50.35	-50.35	-.51	.40728	-.40	-.87	181
1	-5	9.65	8.64	-8.44	1.84	.36721	1.02	3.25	167
1	-5	6.97	6.68	-6.61	-.92	.33189	.29	.80	188
1	-5	4.18	4.52	-4.61	-.29	.30301	-.35	-.65	184
1	-5	6.32	5.60	5.51	.97	.28255	.72	2.14	10
1	-5	167.37	174.42	174.36	4.70	.27240	-7.05	-14.41	1
1	-5	23.55	25.25	-25.22	-1.20	.27372	-1.70	-7.47	183
1	-5	27.33	28.30	28.28	.78	.28635	-.96	-3.91	1
1	-5	23.97	24.26	24.24	1.00	.30891	-.29	-1.26	2
1	-5	17.96	19.04	19.04	.07	.33941	-1.08	-5.48	0
1	-5	21.03	21.51	21.41	2.11	.37594	-.48	-2.33	5
1	-5	59.21	60.70	-60.67	-2.04	.41691	-1.49	-3.25	182

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	4	L	R	E	J	C	A	B	SINHALM	NE	WDF	ANGLE CALC	ANGLE STAT
1	-3	4	1	1	1.99	1.62	1.50	-0.29	.44113	.35	.26	351	
1	-5	7	1	1	20.44	21.10	21.07	1.26	.50777	-.67	-2.55	3	
1	-5	5	1	1	30.75	30.89	30.75	2.99	.55621	-.14	-.53	5	
1	-5	10	1	1	16.53	15.75	-15.71	-1.16	.60602	.03	2.59	195	
1	-5	10	1	1	32.41	32.38	32.36	1.02	.65689	.03	.12	1	
1	-4	-12	1	1	2.50	.79	.79	-.05	.67474	1.71	.96	397	
1	-4	-11	1	1	35.04	35.70	35.65	.66	.62169	-.66	-2.47	1	
1	-4	-10	1	1	29.83	29.75	29.70	1.84	.56928	.08	.31	3	
1	-4	-9	1	1	12.35	12.59	-12.59	-.34	.51769	-.24	-.72	182	
1	-4	-9	1	1	3.23	3.49	3.49	.00	.46721	-.26	-.25	0	
1	-4	-7	1	1	13.85	14.40	-14.40	-.25	.41823	-.55	-1.90	181	
1	-4	-6	1	1	23.73	23.19	-23.19	-.64	.37136	-1.41	-6.09	192	
1	-4	-5	1	1	76.57	76.23	76.10	4.36	.32748	-1.66	-3.00	3	
1	-4	-4	1	1	35.16	35.80	-35.79	-1.03	.28798	-.64	-2.05	182	
1	-4	-3	1	1	1.62	1.94	-1.91	.30	.25490	-.31	-.27	1	
1	-4	-2	1	1	88.30	89.57	89.55	1.62	.23101	-1.27	-2.83	1	
1	-4	0	1	1	63.43	62.73	62.70	1.73	.21934	.71	6.94	1	
1	-4	1	1	1	3.74	.71	.65	.27	.22183	3.03	6.94	1	
1	-4	1	1	1	21.70	23.64	23.64	-.09	.23803	-1.93	-9.05	22	
1	-4	2	1	1	23.37	22.10	-22.10	-.38	.26544	1.26	6.11	181	
1	-4	3	1	1	23.04	22.47	-22.47	-.37	.30102	.57	2.58	181	
1	-4	4	1	1	75.48	73.63	73.52	4.15	.34223	-3.15	-5.57	3	
1	-4	5	1	1	30.04	30.97	30.94	-1.44	.38727	-.93	-3.42	355	
1	-4	6	1	1	16.36	16.34	16.33	.55	.43496	.02	.10	1	
1	-4	7	1	1	37.93	38.59	38.54	1.90	.48451	-.66	-1.94	2	
1	-4	8	1	1	6.94	6.69	-6.60	1.09	.53541	.25	.49	170	
1	-4	9	1	1	2.40	2.64	2.57	.60	.59731	-.24	-.16	13	
1	-4	10	1	1	10.93	10.21	-10.21	-.36	.63996	.72	1.86	183	
1	-4	11	1	1	18.71	18.92	-18.91	-.39	.69319	-.20	-.57	182	
1	-3	-12	1	1	2.43	.41	-.37	-.17	.65650	-2.02	1.16	205	
1	-3	-11	1	1	12.49	12.51	-12.51	.09	.60216	-.02	-.04	179	
1	-3	-10	1	1	20.13	20.13	-20.13	-.36	.54822	.05	.16	182	
1	-3	-9	1	1	69.50	69.72	69.67	2.69	.49483	-.22	-.42	2	
1	-3	-8	1	1	2.15	.34	-.22	.10	.44216	1.92	1.28	162	
1	-3	-7	1	1	17.85	17.12	17.12	-.02	.39054	.73	3.11	0	
1	-3	-6	1	1	11.97	12.69	-12.69	.30	.34041	-.72	-2.73	178	
1	-3	-5	1	1	172.17	171.57	171.50	4.85	.29256	.60	1.17	1	
1	-3	-4	1	1	42.57	41.91	-41.89	-1.18	.24831	.65	1.90	182	
1	-3	-3	1	1	18.73	19.61	-19.61	-.05	.20994	-.89	-4.44	179	
1	-3	-2	1	1	42.43	42.03	-42.03	.11	.18124	.45	1.10	181	
1	-3	-1	1	1	69.38	69.06	-69.05	-.78	.16724	.32	.83	181	
1	-3	0	1	1	156.38	161.14	161.11	3.21	.17159	-.476	-12.57	1	
1	-3	1	1	1	15.93	17.28	-17.25	-1.05	.19305	-1.35	-8.54	184	
1	-3	2	1	1	21.86	19.63	19.63	-.28	.22682	2.23	10.79	0	
1	-3	3	1	1	54.85	55.33	55.31	1.26	.26828	-.48	-.97	1	
1	-3	4	1	1	123.32	127.67	127.59	4.62	.31442	-4.35	-8.16	2	
1	-3	5	1	1	30.67	31.89	-31.87	-1.00	.36344	-1.21	-4.30	182	
1	-3	6	1	1	3.14	2.22	2.19	.35	.41434	.91	1.05	9	
1	-3	7	1	1	27.02	26.91	26.90	.84	.46649	.10	.42	1	
1	-3	8	1	1	25.52	25.63	-25.63	-.61	.51952	-.12	-.47	182	
1	-3	9	1	1	13.49	13.46	13.27	2.26	.57319	.03	.08	9	
1	-3	10	1	1	45.24	44.46	-44.42	-1.76	.62733	.79	1.98	183	
1	-2	11	1	1	2.42	.67	.64	-.20	.68183	1.75	1.01	344	
1	-2	12	1	1	19.97	20.29	-20.29	-.50	.69788	-.32	-.93	182	
1	-2	13	1	1	21.33	20.73	-20.73	.22	.64239	.60	1.91	179	
1	-2	14	1	1	2.31	.21	-.20	-.03	.58706	2.10	1.27	189	

INSEIT	ANGLE STAT	ANGLE CALC	W*DF	DF	SINTH/LW	B	A	FC	FJ	LCR	L	K
1	181	181	-2.28	-1.27	.15313	5.15	269.73	269.80	267.24	1	-4	0
1	181	181	-2.40	-1.17	.13070	4.40	-29.83	29.83	29.66	1	-5	0
1	178	178	-2.32	-1.14	.08356	-1.35	-26.43	26.41	26.55	1	-2	0
1	1	1	-4.38	-1.40	.05685	.37	-18.68	18.69	18.28	1	-1	0
1	179	179	-4.38	-1.13	.07639	1.39	23.07	53.09	51.95	1	0	0
1	181	181	3.73	1.28	.12151	.19	-37.61	37.61	38.89	1	1	0
1	182	182	5.40	2.09	.17348	-.21	-40.83	60.83	82.92	1	2	0
1	185	185	-1.07	-1.19	.22750	-.34	-16.22	16.23	16.03	1	3	0
1	2	2	-3.27	-.83	.28243	-.79	-10.12	10.16	9.33	1	4	0
1	358	358	-5.63	-3.13	.33783	5.35	119.50	119.62	115.44	1	5	0
1	0	0	.66	.15	.39350	-.65	15.58	14.59	14.73	1	6	0
1	4	4	1.51	.45	.44925	.40	32.86	32.86	33.31	1	7	0
1	3	3	2.58	.76	.50530	1.09	13.97	14.01	14.77	1	8	0
1	3	3	4.65	1.40	.56134	1.04	16.09	16.12	17.52	1	9	0
1	2	2	4.01	1.21	.61743	.83	21.14	21.16	22.35	1	10	0
1	3	3	-2.20	-.06	.67357	-.53	-23.94	23.95	23.83	1	11	0
1	182	182	4.20	1.27	.68308	3.12	46.05	46.16	47.44	1	12	0
1	181	181	-1.27	-.40	.62718	-1.10	-43.56	43.57	43.17	1	13	0
1	181	181	-3.35	-.30	.57137	-.10	-5.10	5.11	4.83	1	14	0
1	182	182	1.77	-.37	.51567	-.01	-4.53	4.58	4.28	1	15	0
1	4	4	3.04	.43	.46014	-.55	-22.10	22.11	22.54	1	16	0
1	2	2	6.61	.84	.40483	2.81	32.38	32.51	33.35	1	17	0
1	0	0	8.63	2.03	.34986	1.33	34.21	34.21	36.25	1	18	0
1	181	181	7.85	1.84	.29542	.01	11.75	11.75	13.59	1	19	0
1	1	1	2.19	2.74	.24185	-.40	-34.23	34.23	36.97	1	20	0
1	182	182	4.58	.89	.18990	4.47	152.02	152.09	152.97	1	21	0
1	0	0	-1.54	1.24	.14136	-1.03	-31.10	31.12	32.36	1	22	0
1	354	354	-1.24	-.29	.10128	.03	11.83	11.83	11.54	1	23	0
1	5	5	.76	-.31	.08298	.06	12.18	12.18	8.38	1	24	0
1	178	178	1.57	.15	.09932	-.84	7.11	7.16	7.31	1	25	0
1	0	0	-6.58	-.58	.13855	3.26	34.40	34.55	33.93	1	26	0
1	4	4	4.69	-1.22	.18676	.32	-11.99	12.00	10.77	1	27	0
1	185	185	4.03	.92	.23857	-.21	16.71	16.71	17.63	1	28	0
1	182	182	-2.27	-.94	.29206	.38	23.33	23.33	24.30	1	29	0
1	0	0	-1.75	-.94	.34647	3.90	50.58	50.73	49.79	1	30	0
1	182	182	1.56	.44	.40141	-.79	-10.41	10.44	9.85	1	31	0
1	177	177	.01	.02	.45670	.19	14.73	14.74	15.17	1	32	0
1	355	355	-.61	.01	.51222	.10	-2.12	2.13	2.15	1	33	0
1	7	7	2.07	-.35	.56791	-.67	6.68	6.71	6.36	1	34	0
1	182	182	3.20	.63	.62371	2.83	20.53	20.53	21.35	1	35	0
1	43	43	1.18	1.14	.57961	-.53	-15.93	15.94	17.08	1	36	0
1	14	14	1.18	1.11	.68679	1.06	1.10	1.53	2.64	1	37	0
1	14	14	.07	.41	.63152	.42	15.72	15.73	16.14	1	38	0
1	4	4	.65	.05	.57645	1.28	4.85	5.02	5.07	1	39	0
1	182	182	-2.44	.32	.52166	.60	7.22	7.24	7.56	1	40	0
1	2	2	.08	-.12	.46725	-1.55	-60.68	60.70	59.47	1	41	0
1	2	2	-.72	.05	.41335	4.58	92.78	92.90	92.95	1	42	0
1	181	181	1.00	-.35	.36021	.22	5.89	5.89	5.54	1	43	0
1	0	0	-3.28	-.21	.30821	-.64	-41.20	41.21	41.00	1	44	0
1	10	10	-5.24	.30	.25804	-.33	32.08	32.08	32.38	1	45	0
1	0	0	4.80	-1.39	.21103	1.06	5.57	5.67	4.27	1	46	0
1	3	3	7.69	-2.06	.16980	.73	53.45	53.45	51.39	1	47	0
1	0	0	-7.55	.90	.13958	.94	14.39	14.42	15.33	1	48	0
1	184	184	-8.56	2.60	.12840	.50	56.92	56.92	59.52	1	49	0
1	3	3	-8.56	-1.47	.14086	1.00	-15.60	15.63	14.15	1	50	0
1	3	3	-8.56	-3.28	.17190	5.27	94.61	94.76	91.47	1	51	0

H	X	L	Corp	FQ	FC	A	B	SINHL/M	DE	W*DF	ANGLE CALC	ANGLE STAT
1	2	1		33.93	32.05	32.05	-.21	.21356	1.98	5.78	182	
1	2	1		21.14	20.94	-20.94	-.17	.26081	.20	.91	181	
1	2	1		2.08	1.90	1.84	.32	.31110	.17	.16	179	
1	2	1		42.46	43.92	-43.92	.15	.36318	-1.46	-3.39	179	
1	2	1		14.21	14.61	14.59	.73	.41637	-.40	-1.46	2	
1	2	1		2.06	1.58	1.84	.36	.47031	.12	.12	11	
1	2	1		2.53	2.03	-2.02	-.18	.52475	.55	.42	185	
1	2	1		9	27.07	-27.06	-.84	.57955	.75	2.97	192	
1	2	1		27.82	27.07	43.67	4.34	.63463	.48	1.19	5	
1	2	1		44.36	43.88	32.00	-.01	.65992	.43	1.45	0	
1	2	1		32.42	32.00	7.97	-.20	.69478	1.62	3.03	182	
1	2	1		9.63	7.97	53.43	2.65	.64069	-.93	-2.54	2	
1	2	1		52.56	53.49	35.64	1.75	.58659	-.87	-3.14	2	
1	2	1		34.81	35.69	3.32	.20	.53319	-1.11	-.71	3	
1	2	1		2.21	3.32	-57.21	-1.91	.42848	-1.08	-2.60	182	
1	2	1		56.15	57.24	51.75	3.31	.42869	-.74	-1.91	3	
1	2	1		51.12	51.86	-9.30	-.74	.37821	.32	.99	185	
1	2	1		9.65	9.33	18.25	.16	.32964	-.79	-3.87	0	
1	2	1		17.47	18.25	-41.78	-.28	.28396	.09	.24	181	
1	2	1		41.87	41.78	-23.70	-.91	.24281	.55	2.57	193	
1	2	1		24.27	23.72	113.38	4.11	.20888	-1.78	-4.19	2	
1	2	1		111.63	113.46	53.61	1.45	.18617	-.67	-1.43	1	
1	2	1		52.96	53.63	-13.97	-.12	.17899	-1.06	-6.23	181	
1	2	1		12.91	13.97	1.03	-.71	.18913	.50	.46	224	
1	2	1		1.53	1.03	169.45	4.39	.21413	-.68	-15.99	1	
1	2	1		40.78	41.68	-41.67	-.95	.24958	-.90	-2.61	182	
1	2	1		37.94	35.73	-36.73	-.28	.29168	1.11	2.92	181	
1	2	1		33.26	33.27	-33.27	-.08	.33796	-.01	-.04	181	
1	2	1		32.35	32.72	-32.70	-1.11	.38692	-.37	-1.22	182	
1	2	1		13.48	12.36	11.92	3.33	.43767	1.11	3.78	15	
1	2	1		9.79	9.15	-9.15	.23	.48864	.65	1.67	178	
1	2	1		25.40	26.15	26.15	.16	.54249	-.75	-2.87	0	
1	2	1		6.83	7.44	7.44	.15	.59598	-.61	-1.00	1	
1	2	1		35.99	35.05	34.92	3.00	.64996	.94	2.96	4	
1	2	1		7.82	5.74	5.73	-.29	.70431	2.08	3.28	358	
1	2	1		52.03	52.52	52.41	3.35	.65390	-.49	-1.43	3	
1	2	1		7.93	6.72	-6.72	.20	.60152	1.21	2.33	178	
1	2	1		2.33	1.87	-1.82	-.46	.54992	.46	.30	195	
1	2	1		20.65	20.67	20.66	-.58	.49935	-.02	-.07	359	
1	2	1		6.86	6.88	6.80	1.03	.45016	-.01	-.02	8	
1	2	1		41.33	41.55	-41.55	.23	.40284	-.22	-.66	179	
1	2	1		37.40	37.63	37.60	1.70	.35816	-.23	-.74	2	
1	2	1		4.71	4.79	-4.74	.68	.31722	-.08	-.16	171	
1	2	1		22.24	24.54	-24.49	-1.58	.28165	-2.30	-11.00	184	
1	2	1		119.40	119.18	118.09	4.62	.25373	1.22	8.62	2	
1	2	1		13.70	12.07	12.07	.35	.23618	1.62	8.62	1	
1	2	1		45.35	43.27	-43.27	-.46	.23138	2.08	4.46	181	
1	2	1		51.89	52.53	-52.53	-.54	.24010	-.64	-1.35	181	
1	2	1		31.79	35.18	35.17	.92	.26097	-3.39	-11.20	1	
1	2	1		20.42	20.36	20.34	.98	.29141	.06	.26	2	
1	2	1		14.91	15.90	15.87	1.00	.32876	-.99	-4.39	3	
1	2	1		9.09	8.63	-8.63	.04	.37094	.46	1.40	179	
1	2	1		12.86	13.79	13.77	-.79	.41649	-.93	-3.16	357	
1	2	1		43.08	43.67	43.43	4.54	.46442	-.58	-1.39	5	
1	2	1		17.25	17.20	-17.20	-.39	.51406	.05	.17	182	
1	2	1		17.94	17.99	-17.99	-.36	.56496	-.05	-.17	182	

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	FC	A	B	SINTH/LW	DF	W*GF	ANGLE CALC	ANGLE STAT
1	23.71	24.39	-24.35	2.64	.39351	-1.21	-5.00	173
1	28.44	27.49	-27.44	1.65	.39209	.95	3.37	173
1	9.34	9.32	9.92	.09	.39871	.02	.05	0
1	19.00	18.72	-18.64	-1.72	.41299	.28	1.20	186
1	13.73	13.42	13.21	2.27	.43416	.32	1.08	9
1	3.15	2.53	2.52	-.13	.46129	.63	.61	358
1	9.23	10.23	10.21	.52	.49339	-.99	-2.40	2
1	15.11	14.96	-14.96	.28	.52956	.14	.45	178
1	5.75	6.66	6.61	-.82	.56902	-.90	-1.34	353
1	9.72	35.48	35.33	3.24	.61113	.24	.84	5
1	13.23	13.14	13.11	.99	.65539	.08	.20	4
1	15.12	13.25	-13.25	-.22	.70139	1.87	4.57	181
1	23.24	23.13	23.04	2.01	.70161	.11	.35	4
1	9.24	9.17	9.15	.50	.65905	.07	.14	3
1	4.67	2.60	-2.60	.08	.61871	.07	2.49	3
1	21.01	20.97	-20.95	-.90	.58103	.04	.13	178
1	30.52	31.13	31.12	1.01	.54657	-.62	-2.52	183
1	35.65	34.55	34.53	1.35	.51599	-.91	-3.40	1
1	29.39	25.34	25.26	1.95	.49000	.06	.23	2
1	48.37	46.48	48.46	1.33	.46936	-.11	-.27	4
1	35.48	36.24	-36.17	-2.15	.45482	-.75	-2.48	1
1	36.75	35.50	35.37	3.06	.44695	1.25	3.90	184
1	35.89	36.63	-36.63	-.10	.44613	-.74	-2.29	4
1	12.03	11.58	-11.58	-.11	.45237	.45	1.39	181
1	31.54	32.13	-32.12	-.72	.46541	-.58	-2.02	181
1	23.01	22.55	-22.55	-.02	.48469	.18	1.85	182
1	16.93	16.75	16.70	1.23	.50950	.46	.63	181
1	39.31	39.66	39.61	1.87	.53909	.18	.63	4
1	41.99	42.00	41.98	1.09	.57270	-.35	-1.05	2
1	40.33	39.65	-39.61	-1.80	.60968	-.01	-.03	1
1	27.05	27.12	26.92	3.31	.64946	-.07	-.24	183
1	19.52	18.76	18.75	.37	.69154	.76	2.10	7
1	2.46	1.61	1.59	.24	.65944	.85	.48	1
1	33.45	34.42	34.39	1.49	.65653	-.97	-3.46	8
1	2.34	1.47	-1.35	.57	.62145	.87	.52	2
1	10.17	10.34	-10.31	-.85	.58969	-.17	-.40	157
1	41.67	42.84	42.78	2.39	.56179	-1.17	-3.73	185
1	33.53	33.62	33.57	1.76	.53836	-.08	-.30	3
1	12.80	11.71	-11.71	1.10	.52002	1.09	3.31	3
1	64.18	62.82	-62.77	-2.46	.50730	1.36	2.58	179
1	53.77	53.57	53.52	2.29	.50064	.20	.38	183
1	3.20	4.30	-4.30	-.02	.50027	.20	.38	2
1	11.42	10.78	-10.75	.78	.50622	.64	1.81	181
1	10.68	10.21	-10.20	.48	.51827	.47	1.19	175
1	5.21	.91	.13	-.90	.53600	4.30	6.27	177
1	13.41	14.21	13.96	2.66	.55829	-.80	-2.31	279
1	13.08	12.84	12.78	1.24	.58628	.24	.64	10
1	8.79	8.27	8.27	.21	.61765	.52	.99	5
1	11.74	11.10	-11.00	-1.47	.65238	.64	1.42	1
1	23.42	22.50	22.42	1.79	.68996	.92	2.79	188
1	6.67	7.58	7.41	1.64	.69657	.92	2.79	4
1	9.59	8.32	8.25	1.08	.66390	-.92	-1.28	4
1	31.91	32.64	-32.56	-2.28	.63456	1.27	2.56	12
1	9.70	10.15	9.99	1.79	.60903	-.73	-2.68	7
1	13.47	13.30	13.29	.52	.58781	-.44	-.97	185
1	15.85	14.91	-14.91	.28	.57139	.17	.47	10
1						.95	3.03	2
1								178

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	I	K	L	GPR	FU	FC	A	B	SINHL/W	DF	W*DF	ANGLE CALC	ANGLE STAT
2	-10	10	-7	1	5.47	6.76	6.75	-.43	.56017	-1.29	-1.96	181	181
2	-10	10	-2	1	19.69	19.50	17.44	.62	.55448	.19	.67	357	357
2	-10	10	-1	1	14.77	15.33	15.24	1.26	.55450	-.55	-1.71	4	4
2	-10	10	0	1	25.12	25.45	25.34	1.84	.56021	-.23	-1.25	4	4
2	-11	10	1	1	7.29	7.59	7.53	.92	.57145	.70	1.40	6	6
2	-11	10	2	1	19.09	18.59	18.44	-1.99	.58790	.50	1.65	187	187
2	-11	10	3	1	2.67	2.55	2.55	2.27	.60913	.73	.15	69	69
2	-11	10	4	1	4.53	2.55	2.55	.12	.63468	.28	2.58	2	2
2	-11	10	5	1	15.77	14.76	-14.76	-.15	.56404	.31	.81	181	181
2	-11	10	6	1	2.60	.34	.05	-.37	.69672	2.22	1.20	272	272
2	-11	11	-7	1	45.99	45.82	-45.76	.36	.68085	.09	.25	183	183
2	-11	11	-5	1	4.40	5.65	5.51	1.34	.65740	-1.27	-1.32	13	13
2	-11	11	-4	1	3.10	2.76	2.73	.34	.63809	.35	.27	7	7
2	-11	11	-3	1	33.29	32.91	32.87	1.55	.52329	.38	1.40	2	2
2	-11	11	-2	1	24.41	23.81	23.78	1.15	.61334	1.00	3.50	2	2
2	-11	11	-1	1	2.39	1.99	1.71	-1.02	.60846	.39	.23	330	330
2	-11	11	0	1	23.69	22.84	22.75	2.02	.60878	.85	2.99	5	5
2	-11	11	1	1	11.55	10.95	10.37	1.15	.61429	.62	1.42	6	6
2	-11	11	2	1	15.49	14.85	14.84	.51	.52486	.64	1.75	1	1
2	-11	11	3	1	30.00	29.90	-29.83	-2.03	.64023	.10	.35	184	184
2	-11	11	4	1	2.52	2.16	1.81	1.17	.66007	.36	.20	32	32
2	-11	11	4	1	26.67	26.02	-26.02	-.05	.68399	.65	2.09	4	4
2	-11	11	4	1	12.44	12.19	12.16	.88	.68902	.25	.55	181	181
2	-11	11	5	1	41.20	40.80	40.75	1.97	.67562	.40	1.24	2	2
2	-11	11	0	1	2.51	4.74	-4.67	.82	.66672	-2.23	-1.24	170	170
2	-11	11	-1	1	43.03	41.35	-41.28	-2.39	.66252	1.67	4.67	184	184
2	-11	11	-2	1	38.16	37.90	37.75	1.90	.66310	.36	1.06	2	2
2	-11	11	-3	1	12.59	13.10	13.09	.53	.66845	-.51	-1.13	175	175
2	-11	11	2	1	4.97	5.06	-5.05	-.62	.69290	-.19	1.51	2	2
2	-11	11	2	1	25.38	24.90	-24.89	.37	.67845	.49	1.51	179	179
2	-11	11	1	1	11.07	10.34	10.31	-.70	.70365	.74	.05	4	4
2	-11	11	-1	1	16.61	16.59	-16.59	.10	.68597	.03	1.45	2	2
2	-11	11	-5	1	13.44	14.08	14.04	1.01	.57008	-.60	-1.37	3	3
2	-11	11	-3	1	10.65	10.02	10.01	.50	.65865	.63	1.37	2	2
2	-11	11	-2	1	25.34	26.09	26.04	1.67	.65190	-.75	-2.51	3	3
2	-11	11	0	1	40.52	41.84	-41.77	-2.51	.64999	-1.32	-3.96	184	184
2	-11	11	1	1	6.82	6.09	6.06	.64	.65296	.72	1.13	6	6
2	-11	11	1	1	31.91	32.27	32.27	1.60	.66074	-.40	-1.38	2	2
2	-11	11	2	1	7.33	6.72	-6.67	.88	.67316	.60	.99	172	172
2	-11	11	3	1	10.53	10.11	10.11	-.19	.68998	.43	.90	359	359
2	-11	11	7	1	3.51	.65	-.01	.65	.68099	2.85	2.26	91	91
2	-11	11	8	1	8.26	7.35	7.30	.86	.65565	.90	1.62	6	6
2	-11	11	-5	1	27.17	27.61	-27.57	-1.44	.63432	-.43	-1.50	184	184
2	-11	11	-4	1	9.77	9.93	-9.93	.05	.61741	-.16	-.34	179	179
2	-11	11	-3	1	7.54	7.65	-7.63	.56	.60530	-.11	-.19	175	175
2	-11	11	-1	1	36.18	37.80	37.73	2.33	.59827	-1.62	-5.23	3	3
2	-11	11	0	1	7.58	8.24	-8.01	1.94	.59650	-.66	-1.25	194	194
2	-11	11	1	1	28.48	27.90	27.87	2.05	.60004	.59	2.20	2	2
2	-11	11	2	1	44.81	44.98	44.94	.94	.60881	-.18	-.50	2	2
2	-11	11	3	1	20.03	20.55	20.53	.94	.62257	-.52	-1.74	2	2
2	-11	11	3	1	5.75	6.81	6.73	1.06	.64101	-1.06	-1.46	8	8
2	-11	11	4	1	36.73	37.18	-37.15	-1.60	.66373	-.45	-1.55	183	183
2	-11	11	5	1	8.70	8.22	8.20	.61	.69032	.48	.90	4	4
2	-10	10	-9	1	14.75	15.42	15.41	.40	.69772	-.66	-1.59	1	1
2	-10	10	-8	1	4.07	4.69	4.67	.42	.66378	-.62	-.55	5	5
2	-10	10	-7	1	14.42	15.81	-15.81	-.21	.66306	-1.39	-3.70	181	181

H	K	L	GSP	FQ	FC	A	B	SINITH/LV	NE	W*NE
2	-10	-5	1	9.54	12.15	-10.00	1.74	.60603	-.61	-1.31
2	-10	-5	1	10.48	10.68	-10.47	-2.11	.58320	-.20	-.50
2	-10	-4	1	7.10	6.40	6.38	.49	.56510	.71	1.31
2	-10	-3	1	22.55	22.21	22.15	1.64	.55218	.34	1.27
2	-10	-2	1	14.67	16.22	16.11	1.83	.54481	-1.55	-4.97
2	-10	-1	1	2.20	4.15	4.15	-.11	.54321	-1.96	-1.25
2	-10	0	1	40.77	40.06	40.06	.66	.54745	.70	1.92
2	-10	1	1	21.65	22.51	22.50	.90	.55738	-.86	-3.17
2	-10	2	1	10.94	11.44	11.44	.29	.57270	-.50	-1.26
2	-10	3	1	3.73	3.12	2.59	1.75	.59301	.60	.66
2	-10	4	1	28.57	29.60	-29.50	-2.41	.61781	-1.03	-3.80
2	-10	5	1	2.34	.67	-.37	.56	.64658	1.68	1.00
2	-10	6	1	6.43	5.77	-5.61	1.34	.67882	.66	.98
2	-10	7	1	26.53	26.20	26.18	1.12	.65969	.33	1.04
2	-10	8	1	2.45	1.25	.67	-1.06	.65499	1.20	.68
2	-9	-9	1	12.92	13.61	-13.60	-.27	.61903	-.69	-1.77
2	-9	-7	1	17.31	18.53	-19.53	.44	.58628	-1.23	-3.84
2	-9	-6	1	48.17	48.83	48.72	3.19	.55732	-.65	-1.51
2	-9	-5	1	2.83	3.07	-2.69	-1.48	.53277	-.24	-.20
2	-9	-4	1	2.15	1.97	1.84	.72	.51325	.18	.12
2	-9	-3	1	24.24	24.48	24.43	1.59	.49936	-.24	-.99
2	-9	-2	1	13.80	13.65	13.64	.65	.49158	.14	.49
2	-9	-1	1	32.17	33.02	32.98	1.57	.49020	-.85	-2.88
2	-9	0	1	55.71	55.28	-55.25	-1.83	.49527	.43	.83
2	-9	1	1	9.04	9.28	-9.28	-.06	.50659	-.24	-.62
2	-9	2	1	8.80	8.96	8.91	.95	.52377	-.16	-.40
2	-9	3	1	29.29	30.60	30.50	2.45	.54625	-.27	-.71
2	-9	4	1	9.09	8.79	-8.63	-1.67	.57340	-1.31	-5.10
2	-9	5	1	18.42	18.76	18.73	1.03	.60460	-.30	.71
2	-9	6	1	32.34	32.69	32.63	1.90	.63926	-.35	-1.29
2	-9	7	1	19.03	18.80	-18.80	.34	.67684	.23	.67
2	-9	8	1	2.56	2.94	-2.93	-.17	.69794	-.38	-.21
2	-9	-10	1	28.32	28.04	27.91	2.65	.65496	.28	.97
2	-8	-9	1	28.52	28.89	-28.84	-1.66	.61414	-.37	-1.36
2	-8	-6	1	46.63	48.32	48.31	.79	.57596	-1.69	-4.05
2	-8	-7	1	43.87	43.97	43.94	1.76	.54095	-1.10	-.29
2	-8	-6	1	37.41	38.08	38.00	2.46	.50979	-.67	-2.09
2	-8	-5	1	25.54	26.77	-26.77	-.51	.48322	-1.13	-4.66
2	-8	-4	1	5.27	4.73	4.73	.14	.46202	.54	.87
2	-8	-3	1	12.90	12.70	-12.70	.06	.44696	.20	.65
2	-8	-2	1	51.92	52.54	-52.54	-.48	.43868	-.62	-1.29
2	-8	-1	1	48.79	49.20	49.12	2.88	.63756	-.41	-1.05
2	-8	0	1	64.57	63.02	-62.96	-2.60	.44366	1.55	2.31
2	-8	1	1	6.14	6.58	-6.56	.44	.45668	-.44	-.87
2	-8	2	1	41.54	41.25	41.20	2.04	.47606	.29	.79
2	-8	3	1	60.77	61.86	61.81	2.39	.50106	-1.09	-2.10
2	-8	4	1	11.94	11.43	11.43	.05	.53088	.51	1.56
2	-8	5	1	13.32	12.61	-12.61	.02	.56477	.71	2.19
2	-8	6	1	33.73	33.62	33.61	.83	.60204	.10	.37
2	-8	7	1	9.19	8.99	8.98	.30	.64210	.20	.41
2	-8	8	1	2.54	3.99	-3.58	1.76	.68445	-1.45	-.80
2	-7	-11	1	16.56	15.90	15.89	.63	.66368	.66	1.83
2	-7	-10	1	46.45	47.62	47.47	3.75	.61862	-1.16	-2.92
2	-7	-9	1	12.50	12.07	-12.07	-1.23	.57557	.43	1.18
2	-7	-8	1	20.30	19.57	19.55	.75	.53498	.73	2.68
2	-7	-7	1	55.93	56.89	56.87	1.54	.49748	-.96	-1.83

ANGLE
CALC
170
192
4
4
5
359
0
2
1
34
185
123
165
2
303
182
178
3
209
21
3
2
2
2
3
4
6
181
182
178
194
5
184
0
3
3
3
182
179
181
3
183
176
2
2
1
1
153
2
4
186
2
1

77623

NO	K	L	CRP	FD	FC	A	B	SINTH/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
1	-7	-6	1	14.01	15.25	-19.35	.31	.46281	-.34	-1.21	178	
2	-7	-4	1	19.31	19.34	-19.32	1.05	.43497	-.03	-1.13	176	
3	-7	-3	1	3.28	1.15	.29	1.11	.41164	2.13	2.54	185	
4	-7	-3	1	13.45	13.09	-13.09	-.29	.39515	.36	1.38	182	
5	-7	-2	1	11.52	11.15	-11.14	.58	.38624	.37	1.31	177	
6	-7	-1	1	22.65	23.25	-23.74	3.10	.38546	-.60	-2.61	172	
7	-7	0	1	29.44	28.98	-28.96	-1.27	.39284	.57	1.88	358	
8	-7	1	1	45.73	46.39	-46.37	1.20	.40795	-.61	-1.50	1	
9	-7	2	1	11.95	12.84	-12.79	1.45	.42997	-.92	-3.09	6	
10	-7	3	1	17.91	19.31	-19.31	.28	.45791	-1.30	-5.62	179	
11	-7	4	1	41.82	44.01	-43.97	1.91	.49075	-2.19	-5.89	2	
12	-7	5	1	12.38	10.43	10.35	-1.34	.52758	1.95	5.93	353	
13	-7	6	1	21.87	22.03	-22.02	-.37	.56763	-.16	-.57	181	
14	-7	7	1	20.55	21.02	21.00	.97	.61026	-.47	-1.56	9	
15	-7	8	1	14.15	14.01	13.82	2.24	.65496	.15	.40	196	
16	-7	9	1	13.01	13.30	-13.32	-1.34	.70135	-.29	-.65	181	
17	-6	-12	1	8.73	8.12	-8.12	-.04	.68082	.61	1.05	181	
18	-6	-11	1	9.98	9.92	-9.87	.77	.63227	.08	.16	175	
19	-6	-10	1	30.98	31.85	31.75	2.51	.58513	-.87	-3.21	4	
20	-6	-9	1	14.43	15.16	15.16	-.21	.53975	-.73	-2.27	0	
21	-6	-8	1	22.91	22.99	-22.99	-.34	.49662	-.08	-.31	181	
22	-6	-7	1	13.12	13.63	-13.63	-.19	.45639	-.51	-1.66	181	
23	-6	-6	1	8.89	7.93	7.92	-.36	.41989	.96	2.60	358	
24	-6	-5	1	34.53	35.89	-35.80	4.03	.38816	-1.32	-2.16	2	
25	-6	-4	1	52.52	54.65	-54.62	-1.83	.36247	-2.03	-4.81	182	
26	-6	-3	1	1.79	.57	.45	.34	.34417	1.22	.96	36	
27	-6	-2	1	64.05	64.86	-64.83	2.01	.33447	-.81	-1.45	1	
28	-6	-1	1	24.86	24.26	24.15	2.33	.33413	.60	1.20	5	
29	-5	0	1	1.74	.24	-.22	-.09	.34317	1.49	3.36	203	
30	-5	1	1	4.33	2.51	-2.49	-.25	.36039	1.82	3.36	185	
31	-5	2	1	1.84	.56	-.56	.02	.38610	1.28	1.97	177	
32	-5	3	1	29.32	29.94	-29.93	-.53	.41743	-.62	-2.29	182	
33	-5	4	1	51.22	53.14	-53.03	3.33	.45363	-1.92	-4.80	3	
34	-5	5	1	40.95	42.00	-41.95	-2.20	.49362	-1.05	-3.13	183	
35	-5	6	1	6.92	7.51	7.49	.48	.53656	-.59	-1.11	3	
36	-5	7	1	25.09	25.76	-25.69	1.98	.58180	-.68	-2.51	4	
37	-5	8	1	25.26	26.75	-26.69	1.76	.62883	-1.49	-5.10	3	
38	-5	9	1	26.44	26.24	26.23	.60	.67729	.20	.65	3	
39	-5	-12	1	9.00	7.81	7.81	.19	.65452	1.19	2.25	1	
40	-5	-11	1	10.33	9.94	-9.94	.28	.60417	.39	.98	178	
41	-5	-10	1	11.73	10.83	-10.83	.01	.55498	.90	2.46	179	
42	-5	-9	1	9.37	9.40	-9.40	1.25	.50728	-.03	-.08	172	
43	-5	-8	1	11.66	12.18	-12.16	-.63	.46154	-.52	-1.54	183	
44	-5	-7	1	4.04	3.83	-3.82	-.31	.41839	.21	.27	185	
45	-5	-6	1	18.75	18.08	18.07	.72	.37873	.67	2.99	2	
46	-5	-5	1	99.32	101.80	101.80	4.86	.34377	-2.59	-4.59	2	
47	-5	-4	1	3.11	4.42	-4.21	-1.34	.31507	-1.31	-1.84	198	
48	-5	-3	1	71.32	71.14	71.13	.84	.29447	.19	.36	0	
49	-5	-2	1	16.35	16.48	16.45	1.13	.28374	-.13	-.72	3	
50	-5	-1	1	2.88	3.89	3.89	.13	.28400	-.02	-.72	3	
51	-5	0	1	13.90	12.24	12.24	1.66	.29522	-1.02	-1.55	7	
52	-5	1	1	82.08	83.55	-83.53	-1.63	.31624	1.66	8.30	1	
53	-5	2	1	24.38	24.48	-24.48	-.55	.34527	-1.46	-2.72	182	
54	-5	3	1	3.32	1.06	.70	.80	.38048	-.10	-.45	182	
55	-5	4	1	39.52	40.11	39.93	.76	.42033	2.26	3.07	49	
56	-5	5	1	26.96	27.06	-27.03	-1.41	.46361	-.10	-1.75	5	

STATION	INSTRUMENT	FACE	BEARING	DISTANCE	ANGLE	W. OF	ANGLE
					DEG		STAT
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20
21	21	21	21	21	21	21	21
22	22	22	22	22	22	22	22
23	23	23	23	23	23	23	23
24	24	24	24	24	24	24	24
25	25	25	25	25	25	25	25
26	26	26	26	26	26	26	26
27	27	27	27	27	27	27	27
28	28	28	28	28	28	28	28
29	29	29	29	29	29	29	29
30	30	30	30	30	30	30	30
31	31	31	31	31	31	31	31
32	32	32	32	32	32	32	32
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34	34	34	34	34	34	34	34
35	35	35	35	35	35	35	35
36	36	36	36	36	36	36	36
37	37	37	37	37	37	37	37
38	38	38	38	38	38	38	38
39	39	39	39	39	39	39	39
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41	41	41	41	41	41	41	41
42	42	42	42	42	42	42	42
43	43	43	43	43	43	43	43
44	44	44	44	44	44	44	44
45	45	45	45	45	45	45	45
46	46	46	46	46	46	46	46
47	47	47	47	47	47	47	47
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55	55	55	55	55	55	55	55
56	56	56	56	56	56	56	56
57	57	57	57	57	57	57	57
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60	60	60	60	60	60	60	60
61	61	61	61	61	61	61	61
62	62	62	62	62	62	62	62
63	63	63	63	63	63	63	63
64	64	64	64	64	64	64	64
65	65	65	65	65	65	65	65
66	66	66	66	66	66	66	66
67	67	67	67	67	67	67	67
68	68	68	68	68	68	68	68
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70	70	70	70	70	70	70	70
71	71	71	71	71	71	71	71
72	72	72	72	72	72	72	72
73	73	73	73	73	73	73	73
74	74	74	74	74	74	74	74
75	75	75	75	75	75	75	75
76	76	76	76	76	76	76	76
77	77	77	77	77	77	77	77
78	78	78	78	78	78	78	78
79	79	79	79	79	79	79	79
80	80	80	80	80	80	80	80
81	81	81	81	81	81	81	81
82	82	82	82	82	82	82	82
83	83	83	83	83	83	83	83
84	84	84	84	84	84	84	84
85	85	85	85	85	85	85	85
86	86	86	86	86	86	86	86
87	87	87	87	87	87	87	87
88	88	88	88	88	88	88	88
89	89	89	89	89	89	89	89
90	90	90	90	90	90	90	90
91	91	91	91	91	91	91	91
92	92	92	92	92	92	92	92
93	93	93	93	93	93	93	93
94	94	94	94	94	94	94	94
95	95	95	95	95	95	95	95
96	96	96	96	96	96	96	96
97	97	97	97	97	97	97	97
98	98	98	98	98	98	98	98
99	99	99	99	99	99	99	99
100	100	100	100	100	100	100	100

77625

	K	L	GRP	FD	FC	A	P	SINH/LW	DF	W*DF	ANGLF CALC	ANGLF STAT
2	-2	-9	1	19.77	19.40	19.69	2.06	.43708	-.03	-.13	181	
2	-2	-9	1	56.24	55.00	-55.00	-.43	.38451	1.04	2.38	191	
2	-2	-7	1	26.73	27.47	27.47	.29	.33318	-.74	-2.96	191	
2	-2	-6	1	51.43	51.88	-51.88	-.49	.29377	.55	1.08	181	
2	-2	-5	1	54.72	52.62	-52.62	-1.05	.23748	2.10	4.53	182	
2	-2	-4	1	42.56	46.21	45.94	5.00	.19651	-3.65	-8.46	6	
2	-2	-3	1	4.65	4.33	-4.30	-.51	.16489	.32	.93	187	
2	-2	-2	1	6.36	9.74	-9.74	.07	.14871	-3.38	-13.51	179	
2	-2	-1	1	59.73	56.11	56.09	1.30	.15294	-3.38	-13.51	179	
2	-2	0	1	150.93	157.20	157.18	2.75	.17612	2.52	7.23	1	
2	-2	1	1	17.95	18.20	-18.20	-.11	.21213	-6.28	-16.27	1	
2	-2	2	1	32.47	33.36	-33.36	-.29	.25560	-.35	-1.91	191	
2	-2	3	1	20.06	19.32	-19.32	-.48	.30335	-.89	-3.04	181	
2	-2	4	1	21.69	22.37	22.36	-.44	.35365	.74	3.59	182	
2	-2	5	1	28.46	29.40	29.12	4.05	.40552	-.68	-3.34	359	
2	-2	6	1	55.00	56.06	-58.04	-1.67	.45846	-.94	-3.56	7	
2	-2	7	1	21.63	21.88	21.87	.39	.51213	-.25	-.99	182	
2	-2	8	1	20.65	19.55	19.48	1.68	.56633	1.10	3.98	1	
2	-2	9	1	16.82	16.90	15.83	1.55	.62090	-.08	-.24	5	
2	-2	10	1	5.10	5.51	-5.51	.25	.67577	-.41	-.47	177	
2	-1	-13	1	2.55	1.37	1.29	-.47	.70012	1.18	.65	241	
2	-1	-12	1	51.83	52.56	52.41	3.96	.64467	-.73	-1.82	4	
2	-1	-11	1	7.27	6.90	-6.87	-.74	.58939	.37	.66	187	
2	-1	-10	1	9.01	9.77	-8.76	-.27	.53433	.24	.55	182	
2	-1	-9	1	27.76	27.33	27.33	.37	.47958	.43	1.78	0	
2	-1	-8	1	41.63	41.00	-41.00	-.47	.42525	.43	1.78	0	
2	-1	-7	1	12.52	12.84	-12.68	2.02	.37151	-.33	-1.25	181	
2	-1	-6	1	29.94	29.83	29.93	.64	.31869	.11	.36	170	
2	-1	-5	1	34.04	32.96	32.96	.03	.26731	1.08	3.57	1	
2	-1	-4	1	14.42	15.38	-15.38	-.13	.21840	-.96	-5.26	0	
2	-1	-3	1	5.04	4.82	-1.73	4.49	.17406	-.22	.63	181	
2	-1	-2	1	23.37	22.35	22.33	-.85	.13873	1.01	3.50	358	
2	-1	-1	1	35.80	36.04	36.04	.17	.12061	-.24	-.69	0	
2	-1	0	1	27.02	27.74	27.74	.46	.12728	-.73	-2.78	0	
2	-1	1	1	51.03	52.01	-52.00	-.85	.15558	-.98	-2.62	0	
2	-1	2	1	83.20	89.17	89.13	2.83	.19637	-5.97	-14.51	181	
2	-1	3	1	14.61	16.70	16.70	-.09	.24346	-2.08	-11.78	1	
2	-1	4	1	5.30	4.98	4.97	-.30	.29382	.32	.81	357	
2	-1	5	1	1.81	.61	.08	.61	.34604	1.19	.92	82	
2	-1	6	1	21.77	20.96	20.57	4.02	.39939	.81	3.78	11	
2	-1	7	1	2.04	4.03	3.96	-.74	.45346	-1.99	-1.36	350	
2	-1	8	1	6.91	5.64	-5.64	.25	.50803	1.27	2.56	177	
2	-1	9	1	12.73	12.56	12.54	.58	.56296	.18	.48	2	
2	-1	10	1	44.40	44.31	-44.30	-.87	.61814	.09	.23	182	
2	0	11	1	12.11	11.74	11.55	2.11	.67351	.37	.84	10	
2	0	12	1	34.70	34.37	-34.35	-.95	.69573	.33	1.14	182	
2	0	13	1	12.52	12.13	12.00	1.79	.64019	.39	.94	8	
2	0	14	1	8.97	8.84	8.84	-.09	.58481	.13	.28	0	
2	0	15	1	15.74	15.70	15.68	.69	.52963	.04	.13	0	
2	0	16	1	6.30	3.97	3.97	.23	.47473	2.33	4.33	3	
2	0	17	1	5.14	5.27	-5.18	-.99	.42022	-.13	-.22	191	
2	0	18	1	108.10	107.63	107.50	5.25	.36626	.47	.80	2	
2	0	19	1	14.89	16.48	-16.48	.11	.31315	-1.60	-7.42	179	
2	0	20	1	2.55	2.50	-2.48	-.26	.26141	.06	.07	186	
2	0	21	1	4.89	.43	-.42	-.11	.21202	4.46	11.76	196	
2	0	22	1	36.83	37.86	37.81	1.93	.16711	-1.03	-2.52	2	

STATION	GRF	FD	FC	A	B	SIN(H/LM)	DF	W*DF	ANGLE CALC	ANGLE STAT
1	1	19.27	19.60	-19.60	-.12	.13135	-.33	-1.30	181	
2	1	52.99	48.94	-42.94	.05	.11371	4.05	12.64	179	
3	1	44.55	42.42	-42.42	-.36	.12231	2.13	6.37	181	
4	1	44.72	44.41	-44.80	-1.09	.15278	-.09	-.25	182	
5	1	150.11	150.49	150.79	5.71	.19513	-10.07	-24.77	2	
6	1	29.17	20.69	20.69	-.46	.24323	1.48	6.78	359	
7	1	4.20	5.39	-5.39	.10	.29427	-1.19	-2.32	178	
8	1	22.95	22.81	22.78	1.07	.34597	.15	.73	2	
9	1	18.21	17.45	17.37	1.73	.40066	.75	3.28	5	
10	1	12.28	12.97	-12.97	.19	.45500	-.69	-2.24	179	
11	1	32.34	32.53	-32.53	-.38	.50977	.31	1.11	181	
12	1	4.45	5.08	-5.08	-.41	.56486	-.63	-.75	185	
13	1	17.00	15.35	-15.35	-.87	.62017	.65	1.98	184	
14	1	42.22	41.67	41.50	3.74	.67566	.55	1.62	5	
15	1	17.61	17.34	-17.34	-.25	.69560	.27	.74	181	
16	1	7.07	7.27	7.27	.03	.64034	-.20	-.31	0	
17	1	7.51	7.73	7.46	2.00	.58529	-.22	-.40	15	
18	1	30.45	29.49	29.45	1.43	.53052	1.00	4.17	2	
19	1	20.69	20.28	20.28	.22	.47612	.42	1.70	0	
20	1	35.90	36.39	36.39	-.47	.42223	-.49	-1.56	0	
21	1	59.47	59.98	59.82	4.41	.36908	-.51	-.84	4	
22	1	34.87	33.32	-33.31	-1.03	.31704	1.54	5.34	182	
23	1	2.40	2.89	2.89	-.07	.26676	-.49	-.57	359	
24	1	25.35	24.62	-24.62	.00	.21945	3.73	13.22	179	
25	1	21.40	20.51	-20.50	-.74	.17750	.88	3.77	183	
26	1	17.35	21.01	20.85	2.57	.14563	-3.63	-17.19	7	
27	1	54.90	52.53	52.52	.90	.13138	2.38	6.94	0	
28	1	41.36	42.78	-42.78	-.28	.14024	-1.42	-3.88	181	
29	1	12.25	14.70	-14.70	-.19	.16859	-2.46	-14.07	181	
30	1	5.29	9.29	8.02	4.69	.16859	-4.00	-12.02	30	
31	1	16.75	17.62	-17.60	-.74	.25494	-.87	-4.80	183	
32	1	18.45	18.17	18.17	.03	.30465	.28	1.51	0	
33	1	14.55	13.93	13.93	.20	.35634	.62	2.68	0	
34	1	30.39	32.09	32.09	-.41	.40926	-1.70	-5.97	0	
35	1	24.87	25.42	25.28	2.66	.46299	-.54	-2.37	0	
36	1	15.52	14.49	-14.49	-.40	.51729	1.03	3.50	6	
37	1	18.53	18.23	-18.23	-.40	.57198	.30	1.00	182	
38	1	27.84	27.07	27.06	.77	.62697	.21	.75	1	
39	1	18.23	18.23	-18.23	-.40	.57198	1.03	3.50	6	
40	1	11.25	10.37	10.36	.54	.68218	.29	.91	5	
41	1	18.92	18.40	-18.35	-1.32	.64512	.52	1.56	3	
42	1	38.08	38.33	38.13	3.91	.59083	-.25	-.92	5	
43	1	2.19	.98	-.79	.57	.53698	1.21	.78	5	
44	1	18.57	17.97	-17.97	-.61	.48369	.59	.34	144	
45	1	3.09	3.44	3.39	-.54	.43119	-.35	-.34	182	
46	1	35.47	36.18	36.14	1.73	.37979	-.71	-2.45	2	
47	1	5.65	6.38	6.33	.83	.33002	1.00	2.23	0	
48	1	24.70	26.55	26.54	.71	.28273	-.70	-1.75	7	
49	1	21.41	22.14	-22.10	-1.26	.23939	-1.85	-7.80	1	
50	1	15.31	14.07	-13.22	4.80	.20257	-.72	-3.25	184	
51	1	3.59	3.47	-3.47	.14	.17638	1.24	6.95	160	
52	1	32.35	31.25	31.25	-.08	.16595	.12	.24	177	
53	1	2.18	2.14	-2.14	.04	.17414	1.10	3.71	0	
54	1	44.45	46.21	-46.20	.83	.19864	.04	.05	179	
55	1	2.01	4.88	4.87	.38	.27709	-1.76	-3.74	178	
56	1						-2.87	-2.87	4	

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H	K	L	GRP	FD	FC	A	B	SINTH/LM	OF	W*DF	ANGLE CALC	ANGLE STAT
1	2	3	1	35.34	35.85	35.94	.66	.32399	-.47	-1.39	183	
1	2	4	1	3.73	4.34	4.34	-.07	.37352	-.62	-.88	1	
1	2	5	1	20.55	19.91	-19.88	-1.15	.42475	.64	2.78	184	
1	2	6	1	27.59	98.56	98.43	4.94	.47713	-.96	-1.37	2	
1	2	7	1	23.30	22.96	22.96	.03	.53033	.34	1.31	0	
1	2	8	1	5.12	5.18	5.18	-.11	.58413	-.05	-.07	182	
1	2	9	1	2.42	2.61	2.53	.66	.63836	-.19	-.11	14	
1	2	10	1	6.13	5.68	-5.63	.77	.69294	.45	.56	172	
1	2	11	1	59.72	60.77	-60.73	-2.16	.65442	-1.05	-2.63	183	
1	2	12	1	28.48	28.57	28.57	3.16	.60129	-.05	-.18	6	
1	2	13	1	2.18	.4	.08	-.46	.54881	1.71	1.10	280	
1	2	14	1	14.72	15.30	-15.30	-.08	.49717	-.58	-1.90	181	
1	2	15	1	53.80	54.37	-54.37	.43	.44668	-.57	-1.43	181	
1	2	16	1	2.77	3.42	3.40	-.37	.39776	-.65	-.64	354	
1	2	17	1	78.59	79.32	79.26	3.20	.35108	-.63	-1.09	2	
1	2	18	1	42.44	42.34	42.31	1.70	.30766	.10	.32	2	
1	2	19	1	38.55	36.35	36.35	.16	.26909	2.20	5.98	0	
1	2	20	1	30.58	30.02	-30.00	-1.13	.23772	.56	1.95	183	
1	2	21	1	63.77	67.34	67.19	4.54	.21671	-3.57	-8.13	3	
1	2	22	1	46.83	48.93	-48.92	-1.02	.20921	-2.10	-4.77	182	
1	2	23	1	6.90	8.14	-8.14	-.26	.21663	-1.25	-4.42	182	
1	2	24	1	17.06	16.46	-16.46	-.10	.23757	.60	3.01	181	
1	2	25	1	27.54	26.61	-26.59	-1.04	.26889	.93	3.42	183	
1	2	26	1	53.72	55.70	65.63	3.09	.30743	-1.98	-3.69	2	
1	2	27	1	5.64	5.32	5.27	.73	.35083	.32	.69	8	
1	2	28	1	26.73	25.96	25.96	.16	.39749	.78	2.89	0	
1	2	29	1	9.53	10.01	-10.01	-.33	.44640	-.49	-1.33	182	
1	2	30	1	64.15	64.13	64.01	3.96	.49688	.03	.06	3	
1	2	31	1	5.33	3.32	3.29	-.41	.54852	2.01	3.02	353	
1	2	32	1	7.49	6.55	6.55	.11	.60100	.93	1.64	0	
1	2	33	1	8.15	7.49	-7.49	-.07	.65412	.66	1.15	181	
1	2	34	1	10.35	10.77	-10.72	-1.05	.66906	-.42	-.83	186	
1	2	35	1	4.71	4.70	4.52	1.27	.61641	.01	.01	15	
1	2	36	1	31.59	31.38	-31.38	-.05	.56567	.21	.86	181	
1	2	37	1	21.41	21.54	21.49	1.46	.51609	-.12	-.48	3	
1	2	38	1	4.47	1.72	1.57	.69	.46804	2.75	3.87	23	
1	2	39	1	5.89	2.98	2.64	-1.39	.42206	2.89	5.53	333	
1	2	40	1	39.71	39.72	39.49	4.27	.37889	-.01	-.02	6	
1	2	41	1	39.89	39.32	39.31	.77	.33960	.57	1.65	1	
1	2	42	1	19.73	18.70	-18.69	-.49	.30571	1.03	5.62	182	
1	2	43	1	3.46	3.89	-3.83	-.68	.27917	-.43	-.71	191	
1	2	44	1	69.33	71.29	71.26	1.55	.26223	-1.96	-4.00	1	
1	2	45	1	14.84	13.33	-13.33	.29	.25680	1.51	7.81	178	
1	2	46	1	4.89	6.45	6.37	1.01	.26360	-1.56	-3.50	9	
1	2	47	1	7.46	7.14	7.13	.27	.28173	.32	1.00	2	
1	2	48	1	21.23	20.97	20.94	-1.16	.30921	.26	1.16	357	
1	2	49	1	42.18	43.05	42.80	4.63	.34380	-.88	-2.09	6	
1	2	50	1	4.95	4.28	4.28	.11	.38359	.68	1.18	1	
1	2	51	1	26.21	26.80	-26.80	-.39	.42713	-.59	-2.36	181	
1	2	52	1	5.21	5.17	-5.17	.00	.47338	.04	.06	179	
1	2	53	1	4.99	4.20	4.09	.93	.52162	.79	1.12	12	
1	2	54	1	2.27	1.00	.88	.48	.57134	1.27	.78	28	
1	2	55	1	13.33	13.17	13.16	.48	.62220	.17	.42	2	
1	2	56	1	2.52	2.13	-2.13	-.06	.67394	.40	.22	182	
1	2	57	1	18.51	18.55	18.54	.49	.68578	-.03	-.10	1	
1	2	58	1	8.98	8.19	-8.18	-.37	.63587	.79	1.57	183	

NO	GRP	FD	FC	A	M	SIN/H/LW	DE	WAVE	ANGLE CALC	ANGLE STAT
1	1	10.20	9.97	9.63	2.14	.58713	.93	.78	12	
2	1	31.87	32.23	32.17	1.03	.53987	-.35	-1.46	3	
3	1	20.75	20.98	20.98	.39	.49453	-.14	-.53	1	
4	1	60.39	61.96	61.92	-2.20	.45167	-1.61	-3.30	193	
5	1	16.24	15.91	15.92	3.02	.41207	.43	1.68	11	
6	1	2.76	2.08	-2.04	-.43	.37677	.69	.71	192	
7	1	5.54	5.73	5.73	.17	.34707	-.418	-.40	1	
8	1	42.42	44.23	44.22	.50	.32452	-1.91	-4.43	0	
9	1	7.18	5.92	5.87	-.75	.31067	1.26	3.54	353	
10	1	91.05	92.22	92.12	3.19	.30672	-1.17	-2.17	3	
11	1	39.95	39.61	39.58	1.67	.31303	.34	.95	2	
12	1	35.97	37.57	37.57	.45	.32901	-1.70	-4.92	0	
13	1	32.42	34.45	-34.42	-1.27	.35336	-2.03	-6.45	193	
14	1	19.46	19.50	-19.26	3.01	.38449	-.03	-.16	171	
15	1	30.12	31.17	-31.17	-.65	.42089	-1.05	-3.97	182	
16	1	11.02	9.94	9.94	.07	.46133	1.08	3.15	0	
17	1	11.64	11.22	11.22	.14	.50492	.46	1.33	0	
18	1	48.31	47.22	-47.20	-1.43	.55066	1.08	2.69	182	
19	1	39.09	38.60	38.49	2.98	.59829	.48	1.44	4	
20	1	35.29	34.79	34.77	1.07	.64732	.51	1.67	1	
21	1	16.38	16.22	16.22	.17	.69747	.16	.40	0	
22	1	16.55	15.62	-15.52	-1.71	.65927	.93	2.66	187	
23	1	33.89	34.62	34.50	2.95	.61271	-.73	-2.74	4	
24	1	5.60	3.87	3.81	.66	.56792	1.73	2.63	9	
25	1	2.14	2.67	-2.66	-.25	.52536	-.53	-.35	186	
26	1	67.66	68.96	-68.94	-1.78	.48562	-1.30	-2.53	182	
27	1	14.80	16.17	16.13	1.15	.44944	-1.37	-4.81	4	
28	1	8.21	7.10	7.06	.73	.41776	1.12	2.93	5	
29	1	49.79	49.47	49.43	1.85	.39167	.32	.71	2	
30	1	8.73	8.82	-8.79	.65	.37234	-.09	-.26	175	
31	1	23.76	22.85	-22.79	-1.71	.36086	.91	3.95	185	
32	1	112.30	112.44	112.34	4.71	.35798	-.13	-.23	2	
33	1	15.32	15.10	15.09	.51	.36392	.23	.05	1	
34	1	32.97	35.41	-35.41	-.43	.37826	-2.44	-7.37	181	
35	1	34.00	34.55	-34.54	-.90	.40009	-.55	-1.83	182	
36	1	45.97	47.07	47.06	1.09	.42827	-1.10	-2.80	1	
37	1	22.68	22.18	-22.18	.42	.46164	.50	2.07	178	
38	1	3.20	.93	.25	.90	.49916	2.26	2.10	74	
39	1	13.25	14.49	14.48	.45	.53996	-1.24	-3.53	1	
40	1	15.59	15.59	-15.58	-1.32	.58336	-.05	-.14	185	
41	1	54.40	52.59	52.45	3.89	.62882	1.81	4.10	4	
42	1	2.51	2.38	2.38	.18	.67592	.13	.07	4	
43	1	2.48	3.65	-3.15	-1.84	.68623	-1.16	-.66	211	
44	1	13.26	13.35	13.18	2.17	.64191	-.09	-.24	9	
45	1	20.84	21.11	-21.11	-.30	.59962	-.27	-.93	181	
46	1	4.70	4.69	4.65	.59	.55981	.02	.02	7	
47	1	24.41	24.81	24.81	.64	.52306	-.40	-1.59	1	
48	1	12.59	12.43	-12.41	-.63	.49004	.16	.49	183	
49	1	15.08	15.55	-15.40	2.12	.46157	-.46	-1.66	172	
50	1	46.75	45.38	45.33	2.04	.43852	1.38	3.46	2	
51	1	5.11	3.55	3.54	.28	.42179	1.57	2.57	4	
52	1	34.10	34.04	-33.97	-2.09	.41215	.06	.20	184	
53	1	24.94	23.50	23.33	2.76	.41009	1.45	5.83	0	
54	1	10.31	8.63	8.63	-.05	.41574	1.68	4.95	0	
55	1	7.59	7.79	7.79	.31	.42879	-.20	-.47	2	
56	1	11.76	12.56	12.56	.27	.44658	-.80	-2.42	1	

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	+	K	L	CRK	FD	FC	A	E	SINHL/LM	GF	WDF	ANGLE CALC	ANGLE STAT
2	2	7	2	1	11.57	11.66	11.84	-0.61	.47428	-.29	-.85	184	
2	2	7	3	1	51.04	51.58	51.49	2.08	.50499	-.53	-1.24	358	
2	2	7	4	1	16.96	16.89	16.85	1.25	.53985	.06	.29	4	
2	2	7	5	1	12.05	11.60	11.60	-.07	.57811	.45	1.18	181	
2	2	7	6	1	10.39	9.03	9.99	-.84	.61915	1.36	3.02	355	
2	2	7	7	1	17.33	17.44	17.28	-.84	.66244	-.11	-.30	7	
2	2	7	8	1	20.93	20.89	20.85	1.27	.67427	.04	.12	3	
2	2	7	9	1	6.54	7.05	7.00	.78	.63443	-.50	-.77	6	
2	2	7	10	1	19.52	19.19	19.10	1.77	.59727	.33	1.19	5	
2	2	7	11	1	36.82	37.29	37.27	1.45	.56330	-.47	-1.59	2	
2	2	7	12	1	14.16	14.02	13.97	-2.04	.53314	.14	.43	2	
2	2	7	13	1	9.27	7.87	7.43	2.62	.50746	.39	.90	19	
2	2	7	14	1	26.92	26.85	26.85	.26	.48697	.06	.21	179	
2	2	7	15	1	3.92	2.38	-2.38	.00	.47236	1.51	1.78	179	
2	2	7	16	1	17.03	16.62	-16.59	-1.08	.46419	.45	1.67	184	
2	2	7	17	1	12.66	12.64	-12.63	.49	.46277	.21	.68	177	
2	2	7	18	1	22.72	23.15	23.13	.98	.46818	-.43	-1.79	2	
2	2	7	19	1	67.51	67.57	67.54	1.99	.48019	-.06	-.09	1	
2	2	7	20	1	51.32	52.42	52.40	1.27	.49833	-1.10	-2.55	1	
2	2	7	21	1	31.59	31.44	-31.38	-1.90	.52194	.15	.49	184	
2	2	7	22	1	48.40	49.55	49.43	3.54	.55034	-1.15	-2.47	4	
2	2	7	23	1	9.52	9.06	9.05	.46	.58281	.46	.98	2	
2	2	7	24	1	11.44	10.61	-10.60	-.22	.61873	.83	1.92	182	
2	2	7	25	1	16.74	16.37	-16.35	-.77	.65752	.37	1.02	183	
2	2	7	26	1	18.71	18.58	-18.58	.06	.69870	.13	.36	179	
2	2	7	27	1	21.32	20.77	20.70	1.76	.67188	.55	1.69	4	
2	2	7	28	1	29.13	29.40	29.34	1.80	.63720	-.27	-.95	3	
2	2	7	29	1	9.23	8.31	8.30	.43	.60578	.92	2.03	2	
2	2	7	30	1	50.68	50.73	-50.66	-2.60	.57817	-.05	-.12	183	
2	2	7	31	1	30.68	30.07	29.99	2.14	.55492	.61	2.47	4	
2	2	7	32	1	10.25	10.27	-10.27	-.08	.53660	-.02	-.05	181	
2	2	7	33	1	25.26	25.07	25.05	.87	.52374	.19	.77	181	
2	2	7	34	1	17.22	16.94	-16.94	.30	.51673	.27	.93	178	
2	2	7	35	1	4.41	4.04	-3.97	-.74	.51582	.38	.47	191	
2	2	7	36	1	37.86	39.23	39.15	2.48	.52105	.12	.40	3	
2	2	7	37	1	34.37	34.24	34.20	1.75	.53222	.12	1.92	2	
2	2	7	38	1	6.33	7.39	7.39	.35	.54898	.93	.40	2	
2	2	7	39	1	19.59	20.15	-20.06	-1.91	.57084	-.58	-1.94	186	
2	2	7	40	1	37.88	37.66	37.59	2.33	.59722	.22	.70	3	
2	2	7	41	1	20.45	20.32	-20.32	-.14	.62758	.14	.44	181	
2	2	7	42	1	10.65	8.63	8.62	.48	.66135	.01	4.30	3	
2	2	7	43	1	4.65	2.12	-2.11	.18	.69804	2.54	2.41	175	
2	2	7	44	1	2.54	4.27	4.23	.60	.67916	-1.73	-.95	8	
2	2	7	45	1	6.40	5.84	-5.83	.27	.65007	.56	.83	177	
2	2	7	46	1	7.92	6.47	6.44	-.67	.62471	1.45	2.66	355	
2	2	7	47	1	17.99	18.25	18.22	.91	.60357	-.26	-.83	2	
2	2	7	48	1	7.85	5.87	5.82	.78	.58710	1.98	3.81	7	
2	2	7	49	1	25.71	25.07	25.01	1.81	.57569	.64	2.36	4	
2	2	7	50	1	26.22	24.72	24.69	1.19	.56966	1.50	5.58	2	
2	2	7	51	1	21.95	22.46	-22.36	-2.10	.56916	-.51	-1.79	186	
2	2	7	52	1	8.10	3.14	-2.26	2.17	.57423	4.97	9.36	136	
2	2	7	53	1	2.32	1.26	1.17	.49	.58471	1.06	.64	22	
2	2	7	54	1	13.49	14.12	-14.12	-.05	.60032	-.63	-1.67	181	
2	2	7	55	1	7.05	7.16	-7.12	-.78	.62067	-.12	-.18	187	
2	2	7	56	1	7.84	9.62	9.60	.50	.64531	-1.78	-2.78	2	
2	2	7	57	1	32.79	33.23	33.21	1.21	.67378	-.43	-1.47	2	

	L	GR	FT	FC	A	B	SINTH/LM	GC	WADF	ANGLE CALC	ANGLE STAT
1	11	1	19.21	19.53	19.49	1.30	.69581	-.32	-.93	3	
2	11	1	26.33	27.60	27.79	1.00	.67246	.53	1.80	2	
3	11	1	11.33	10.23	10.22	-.55	.65316	1.15	2.63	357	
4	11	1	8.40	7.83	7.70	1.53	.63826	.55	.97	11	
5	11	1	4.93	4.75	4.61	1.15	.62808	.18	.21	166	
6	11	1	26.97	27.82	27.81	.79	.62286	1.15	4.11	1	
7	11	1	23.99	23.48	23.37	-.24	.62271	.51	1.74	185	
8	11	1	16.37	15.77	15.72	1.22	.62764	.60	1.76	175	
9	11	1	10.29	29.66	29.66	-.15	.63754	-.37	-1.23	181	
10	11	1	7.53	27.61	27.59	1.15	.65217	-.03	-.12	2	
11	11	1	29.22	27.59	27.59	.88	.67124	.62	2.07	1	
12	11	1	26.35	25.62	25.59	-.17	.69436	.74	2.32	183	
13	11	1	19.94	19.53	19.41	-.21	.70348	.42	1.19	187	
14	12	1	30.52	28.29	28.24	1.70	.69994	.23	7.40	3	
15	12	1	5.35	7.96	7.94	.60	.68081	.39	.65	4	
16	12	1	16.54	16.21	16.20	.34	.67627	.34	.89	178	
17	12	1	22.42	21.63	21.61	-.89	.67642	.79	2.41	183	
18	12	1	32.94	32.76	32.75	.77	.68124	.19	.60	1	
19	12	1	8.79	9.02	8.99	.78	.69064	-.23	-.38	4	
20	12	1	18.89	19.62	19.56	1.54	.70444	-.72	-1.95	4	
21	12	1	18.13	19.28	18.22	1.54	.69303	-.15	-.41	4	
22	12	1	33.37	33.57	33.50	-.23	.67689	-.21	-.72	184	
23	12	1	2.45	.76	-.64	.41	.65514	1.69	.97	147	
24	12	1	19.73	19.38	19.33	1.28	.65803	-.64	-1.93	3	
25	12	1	2.83	1.99	1.61	1.18	.65570	.90	.63	143	
26	12	1	2.43	.52	.09	.51	.65820	1.92	1.10	280	
27	12	1	3.99	2.26	2.20	.53	.66549	1.73	1.61	166	
28	12	1	10.81	11.35	11.28	1.27	.67740	-.54	-1.11	6	
29	12	1	8.24	6.85	6.84	.34	.69370	1.39	2.43	177	
30	12	1	2.52	3.05	3.05	.12	.68943	-.52	-.29	2	
31	11	1	3.27	.95	.86	.41	.66398	2.31	1.78	25	
32	11	1	39.57	39.92	39.85	2.42	.64248	-.36	-1.09	3	
33	11	1	29.57	30.79	30.72	-.21	.62534	-.36	-1.09	3	
34	11	1	17.56	17.40	17.37	1.13	.61291	.15	.47	3	
35	11	1	24.52	24.89	24.82	1.90	.60549	-.36	-1.30	4	
36	11	1	5.80	6.20	6.12	1.01	.60327	-.40	-.58	9	
37	11	1	16.91	16.51	16.49	.92	.60631	.40	1.22	3	
38	11	1	40.88	39.67	39.65	1.30	.61451	1.21	3.31	182	
39	11	1	3.74	2.12	2.08	.40	.62769	1.62	1.57	169	
40	11	1	4.84	3.86	3.83	.45	.64554	.99	1.17	173	
41	11	1	21.72	19.81	19.75	1.57	.66768	1.91	6.15	4	
42	11	1	45.73	45.74	45.68	-.23	.69371	.04	.12	183	
43	11	1	27.49	28.18	28.11	1.94	.67337	-.70	-2.29	184	
44	10	1	4.31	.98	-.95	.25	.64266	3.32	3.58	165	
45	10	1	34.36	34.71	34.68	1.61	.61558	-.35	-1.15	2	
46	10	1	6.74	5.40	4.97	2.11	.59264	1.35	2.29	157	
47	10	1	3.31	5.85	5.82	-.58	.57434	-2.53	-2.21	186	
48	10	1	36.86	37.74	37.73	.91	.56112	-.88	-2.75	1	
49	10	1	24.54	25.24	25.21	1.10	.55335	-.70	-2.68	2	
50	10	1	3.74	3.16	3.16	.08	.55126	.58	.62	178	
51	10	1	4.00	1.96	1.96	1.68	.55491	2.04	2.36	58	
52	10	1	22.88	22.65	22.53	-.27	.56420	.23	.87	186	
53	10	1	7.83	7.60	7.59	.36	.57886	.23	.48	177	
54	10	1	4.21	1.23	1.18	1.21	.59848	2.99	3.57	81	
55	10	1	2.28	1.69	1.10	1.29	.62260	.59	.36	49	
56	10	1	6.11	7.02	7.01	-.20	.65072	-.91	-1.30	359	

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II	K	L	GRP	FD	FL	A	B	SINTH/LW	DF	W+DF	ANGLE CALC	ANGLE STAT
3	-10	5	1	17.99	10.10	-12.08	.69	.68234	-.10	-.30	182	
3	-9	-11	1	17.34	18.15	-19.15	-.00	.70415	-.82	-2.15	181	
3	-9	-10	1	25.26	25.73	25.53	3.14	.65565	-.47	-1.52	203	
3	-9	-9	1	4.06	3.72	-3.44	-1.42	.62993	.33	.32	178	
3	-9	-8	1	21.98	22.04	-22.03	.43	.59720	-.05	-.19	178	
3	-9	-7	1	9.87	9.99	9.87	1.55	.56829	-.13	-.30	182	
3	-9	-6	1	24.43	25.13	25.10	1.07	.54371	-.70	-2.68	182	
3	-9	-5	1	39.76	40.36	40.34	1.24	.52405	-.69	-1.85	182	
3	-9	-4	1	46.69	47.45	-47.43	-1.45	.50990	-.76	-1.74	182	
3	-9	-3	1	2.11	1.35	-1.85	-.01	.50171	-.26	.17	181	
3	-9	-2	1	30.41	30.45	30.44	.73	.49078	-.04	-.15	181	
3	-9	-1	1	30.61	30.57	30.45	2.69	.50418	.04	.14	185	
3	-9	0	1	28.91	28.13	-28.05	-2.01	.51476	.78	3.02	185	
3	-9	1	1	30.37	30.50	30.48	1.09	.53113	-.11	-.40	185	
3	-9	2	1	25.07	25.98	25.90	1.95	.55279	-.90	-3.55	178	
3	-9	3	1	22.94	22.48	-22.47	.44	.57914	-.90	-3.55	178	
3	-9	4	1	32.43	32.65	32.62	1.40	.50958	-.22	-1.68	185	
3	-9	5	1	15.84	15.15	-15.10	-1.19	.64352	.69	1.99	185	
3	-9	6	1	15.62	16.58	-16.58	.05	.68045	-.95	-2.49	179	
3	-5	6	1	9.69	9.54	9.47	1.22	.66655	.15	.29	179	
3	-6	-10	1	21.54	23.01	22.85	2.68	.62603	-1.47	-4.63	183	
3	-6	-9	1	15.33	15.09	-16.07	-.71	.58813	-.76	-2.22	183	
3	-6	-8	1	2.91	1.43	-1.41	.22	.55338	1.38	1.13	171	
3	-6	-7	1	27.44	28.00	-28.00	.03	.52242	-.56	-2.26	179	
3	-6	-6	1	2.49	2.28	-2.26	-.32	.49594	.20	.16	189	
3	-6	-5	1	56.44	59.61	59.55	2.83	.47470	-3.18	-6.31	182	
3	-6	-4	1	62.67	64.85	-64.81	-2.41	.45944	-2.18	-4.42	183	
3	-6	-3	1	9.49	9.83	9.82	.25	.45075	-.34	-.91	183	
3	-6	-2	1	50.60	50.46	50.48	1.98	.44903	.14	.30	182	
3	-6	-1	1	75.27	74.54	74.48	2.91	.45434	.65	.93	182	
3	-4	0	1	14.70	15.28	-15.27	-.50	.46645	-.58	-2.14	182	
3	-4	1	1	8.91	8.59	-8.59	.30	.48484	.31	.84	177	
3	-5	2	1	25.42	25.75	25.73	.92	.50885	-.33	-1.31	177	
3	-6	3	1	6.59	7.05	7.05	.09	.53771	-.06	-.13	0	
3	-8	4	1	3.66	2.33	1.23	1.98	.57069	1.32	1.41	58	
3	-8	5	1	71.73	73.14	-73.08	-2.85	.60712	-1.41	-2.37	183	
3	-8	6	1	10.07	10.40	10.39	.47	.64642	-.33	-.70	183	
3	-8	7	1	17.49	17.23	17.16	1.51	.68810	.27	.75	5	
3	-6	-12	1	15.62	16.24	16.23	.66	.67605	-.62	-1.59	2	
3	-7	-11	1	36.35	36.81	36.78	1.38	.63142	-.46	-1.55	2	
3	-7	-10	1	2.30	.72	-.45	.56	.58881	1.58	.96	128	
3	-7	-9	1	7.84	7.40	-7.37	.60	.54869	.45	.90	175	
3	-7	-8	1	7.15	5.85	-5.80	-.76	.51163	1.30	2.59	188	
3	-7	-7	1	5.26	3.53	-3.50	-.44	.47836	1.73	2.83	188	
3	-7	-6	1	19.21	19.58	-19.58	.18	.44972	-.37	-1.51	179	
3	-7	-5	1	14.69	14.21	13.77	3.49	.42663	.48	1.81	14	
3	-7	-4	1	19.77	19.64	19.59	-1.40	.41003	.13	.59	356	
3	-7	-3	1	28.35	27.91	27.90	1.01	.40075	.44	1.66	2	
3	-7	-2	1	13.43	12.56	12.45	1.71	.39927	.87	3.21	7	
3	-7	-1	1	5.26	5.09	-5.04	.70	.40570	.17	.32	172	
3	-7	0	1	37.79	39.17	39.14	1.49	.41966	-.13	-4.10	2	
3	-7	1	1	13.88	13.96	-13.92	-1.13	.44045	-.08	-.31	185	
3	-7	2	1	9.62	9.64	-9.63	-.33	.46715	-.02	-.06	182	
3	-7	3	1	19.95	20.45	20.44	.66	.49881	-.50	-1.98	1	
3	-7	4	1	15.05	16.13	15.92	2.61	.53455	-1.08	-3.58	9	
3	-7	5	1	27.92	28.10	-28.05	-1.72	.57361	-.18	-.70	184	

H	L	L COP	FM	FC	A	B	SINHL/W	DF	W*DF	ANGLE CALC	ANGLE STAT
3	-7	1	8.43	9.86	9.81	.97	.61536	-1.42	-2.86	5	
3	-7	1	9.14	1.49	8.55	1.58	.65929	.45	.88	5	
3	-6	1	9.45	9.43	9.42	-.45	.69379	.02	.04	358	
3	-6	1	12.83	13.15	-13.16	-.08	.64577	-.33	-.04	181	
3	-6	1	9.94	9.15	9.14	.05	.59921	.79	1.80	0	
3	-5	1	4.59	4.99	-4.96	-.59	.55447	-.40	1.50	197	
3	-6	1	64.44	64.71	64.62	3.47	.51202	-.27	-.51	3	
3	-5	1	9.31	9.09	-9.09	-1.27	.47250	.22	.55	189	
3	-6	1	15.70	17.71	-17.71	.03	.43668	-2.01	-7.49	179	
3	-6	1	17.07	16.51	16.55	1.42	.40556	.46	1.92	4	
3	-6	1	5.77	4.63	3.90	2.85	.38029	.95	1.96	36	
3	-6	1	4.41	3.91	3.89	-.35	.36210	.51	.98	355	
3	-6	1	39.46	40.02	-40.02	-.15	.35208	-.56	-1.62	181	
3	-6	1	9.63	9.21	9.21	.15	.35094	.39	1.34	0	
3	-4	1	4.34	4.47	4.44	-.48	.35876	.13	-.23	354	
3	-6	1	65.03	67.60	67.51	3.48	.37498	-2.57	-4.27	2	
3	-6	1	49.93	52.12	-52.07	-2.20	.39858	-2.19	-4.85	183	
3	-6	1	5.47	3.77	-3.76	.27	.42834	1.70	3.47	175	
3	-6	1	40.45	42.48	42.43	2.03	.46307	-2.02	-5.68	2	
3	-6	1	46.93	48.53	49.47	2.30	.50174	-1.60	-4.29	2	
3	-6	1	17.19	18.13	18.13	.02	.54351	-.94	-3.25	0	
3	-6	1	7.61	6.30	-6.30	.12	.58772	1.31	2.59	178	
3	-6	1	4.29	2.85	2.83	.42	.63387	1.43	1.54	8	
3	-6	1	18.26	17.58	-17.58	-.42	.68155	.68	1.04	182	
3	-5	1	7.95	7.03	-7.00	.62	.66850	.93	1.52	174	
3	-5	1	5.23	1.64	1.61	-.29	.61883	3.60	4.55	350	
3	-5	1	7.14	6.34	-6.34	-.20	.57040	.80	1.52	182	
3	-5	1	18.26	18.10	19.09	.37	.52356	.16	.57	1	
3	-5	1	61.61	61.57	61.35	4.64	.47875	.04	.08	4	
3	-5	1	10.39	10.89	10.82	-1.22	.43668	-.50	-1.40	187	
3	-5	1	39.30	39.48	39.47	.73	.39812	-.17	-.52	1	
3	-5	1	11.10	12.71	-12.68	.95	.36424	-1.62	-5.76	175	
3	-5	1	5.52	5.61	5.60	.37	.33643	-.09	-.20	3	
3	-5	1	19.28	18.02	-17.98	1.22	.31632	1.26	6.71	176	
3	-5	1	50.38	48.89	-48.88	-1.13	.30542	1.49	2.75	182	
3	-5	1	53.44	52.35	-52.34	-.82	.30472	1.09	2.03	181	
3	-5	1	12.83	12.73	12.72	.44	.31429	.33	.45	2	
3	-5	1	140.67	143.94	143.86	4.65	.33325	-3.27	-5.95	1	
3	-5	1	29.77	30.78	-30.74	-1.59	.36012	-1.01	-3.96	183	
3	-5	1	27.56	27.60	27.59	.84	.39328	-.04	-.15	1	
3	-5	1	32.32	31.76	31.72	1.72	.43128	.55	1.92	3	
3	-5	1	48.87	50.30	50.29	.86	.47296	-1.43	-3.45	0	
3	-5	1	3.92	3.63	3.33	1.44	.51743	.30	.35	23	
3	-5	1	33.03	34.19	-34.15	-1.58	.56402	-1.16	-3.83	183	
3	-5	1	6.43	6.30	6.29	-.26	.61226	.13	.21	358	
3	-5	1	6.75	6.67	6.63	.67	.66179	.08	.12	5	
3	-4	1	5.39	5.62	-5.58	-.64	.69880	-.23	-.25	187	
3	-4	1	7.10	7.10	7.10	3.24	.64684	.21	.67	8	
3	-4	1	22.40	22.19	21.95	-.33	.59568	1.17	2.00	184	
3	-4	1	6.50	6.87	6.87	-.02	.54554	-.38	-.64	0	
3	-4	1	52.15	51.83	51.81	1.31	.49674	.33	.76	1	
3	-4	1	15.79	15.16	14.88	2.86	.44970	.64	2.29	10	
3	-4	1	42.60	44.11	-44.10	-.81	.40506	-1.51	-3.92	182	
3	-4	1	15.09	15.10	15.10	.20	.36368	-.01	-.03	0	
3	-4	1	36.43	38.02	38.02	.20	.32681	-1.60	-4.70	0	
3	-4	1	24.67	24.53	-24.51	-.98	.29614	.14	.58	183	

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	Y	L	CRP	FT	FC	A	B	SINHT/LW	Dc	W+DF	ANGLE CALC	ANGLE STAT
3	-4	-7	1	59.965	54.92	52.49	3.61	.27376	.75	1.59	183	
3	-4	-3	1	8.97	9.29	-9.23	-1.05	.26181	-.31	-1.31	187	
2	-4	-2	1	8.75	9.21	9.21	.419	.26171	-.46	-1.82	1	
3	-4	-1	1	20.71	19.39	19.33	1.44	.27349	1.32	6.11	4	
3	-4	0	1	26.66	24.39	24.77	2.44	.22972	1.78	7.03	5	
3	-4	1	1	32.77	34.07	34.07	.09	.32628	-1.29	-4.40	0	
3	-4	2	1	10.13	9.82	9.82	.24	.36307	.31	1.10	1	
3	-4	3	1	1.90	1.30	-1.29	-.13	.40439	.60	1.44	1	
3	-4	4	1	8.59	8.57	-8.56	-.53	.44899	.01	.04	186	
3	-4	5	1	56.40	59.70	59.59	3.48	.49599	-1.30	-2.50	3	
3	-4	6	1	16.29	15.21	-15.12	-1.66	.54477	1.08	3.63	197	
3	-4	7	1	13.51	12.62	-12.62	.02	.59489	.89	2.51	179	
3	-4	8	1	33.64	32.97	32.92	1.83	.64604	.66	2.31	3	
3	-4	9	1	24.48	24.31	24.25	1.69	.69799	.16	.51	3	
3	-3	-14	1	35.00	34.17	-34.16	-.73	.56220	.84	2.89	182	
3	-3	-13	1	51.77	51.37	51.17	4.47	.52917	.40	1.02	4	
3	-3	-12	1	4.40	2.87	2.80	-.64	.57676	1.53	1.82	348	
3	-3	-11	1	24.58	24.35	-24.35	-.31	.52518	.23	.90	181	
3	-3	-10	1	25.13	24.66	-24.66	.12	.47468	.47	1.99	179	
3	-3	-9	1	10.81	10.36	10.35	.27	.42566	.45	1.35	1	
3	-3	-8	1	20.27	19.05	18.03	1.91	.37869	-2.78	-4.60	1	
3	-3	-7	1	34.03	33.58	-33.58	-.26	.33462	.45	1.29	181	
3	-3	-6	1	22.31	21.31	21.31	-.23	.29477	.99	4.33	181	
3	-3	-5	1	45.75	44.63	44.63	.30	.26107	.99	2.24	0	
3	-3	-4	1	136.47	137.10	137.00	5.32	.23618	1.11	2.24	0	
3	-3	-3	1	7.21	9.59	-9.51	-1.27	.22306	-.23	-.51	2	
3	-3	-2	1	3.94	1.09	1.04	.35	.22379	-2.29	-8.96	188	
3	-3	-1	1	5.95	4.14	-4.03	.94	.23825	2.85	6.71	18	
3	-3	0	1	83.65	84.85	-84.85	-.40	.26419	1.81	5.85	166	
3	-3	1	1	49.11	51.17	51.13	1.91	.29863	-1.20	-2.47	181	
3	-3	2	1	7.71	7.41	-7.35	-.94	.33899	-2.06	-3.86	2	
3	-3	3	1	12.55	11.59	-11.58	-.51	.38341	.30	.93	188	
3	-3	4	1	5.93	5.06	-5.05	.34	.43063	.87	3.70	183	
3	-3	5	1	100.96	101.33	101.24	4.34	.47982	-.37	-.53	176	
3	-3	6	1	7.70	7.37	-7.32	-.89	.53045	.23	.70	2	
3	-3	7	1	2.23	.90	-.65	.61	.58213	.23	.84	187	
3	-3	8	1	13.57	13.66	13.61	1.17	.63460	1.33	.25	136	
3	-3	9	1	7.75	7.44	7.44	.05	.68769	-.10	-.25	4	
3	-2	-14	1	2.50	2.00	-1.99	-.07	.66964	.31	.49	0	
3	-2	-13	1	8.33	8.24	7.89	2.37	.61583	.50	.28	183	
3	-2	-12	1	25.83	25.91	-25.89	-.94	.56252	.08	.15	16	
3	-2	-11	1	7.24	7.29	-7.29	.11	.50987	-.03	-.12	183	
3	-2	-10	1	28.97	28.43	-28.43	-.38	.45810	-.06	-.11	179	
3	-2	-9	1	27.61	27.90	27.88	.80	.40754	.54	2.12	181	
3	-2	-8	1	91.55	90.88	90.77	4.56	.35872	-.28	-1.05	359	
3	-2	-7	1	11.32	11.67	11.67	-.14	.31245	.66	1.15	2	
3	-2	-6	1	8.40	8.22	-8.22	-.02	.27004	-.34	-1.37	0	
3	-2	-5	1	71.96	68.63	68.62	1.11	.23360	.18	.64	181	
3	-2	-4	1	79.01	77.83	77.76	3.23	.20632	.33	7.29	0	
3	-2	-3	1	43.83	42.38	-42.37	-.46	.19214	1.18	2.77	2	
3	-2	-2	1	8.39	6.72	-6.72	-.04	.19397	1.45	3.47	181	
3	-2	-1	1	37.18	36.79	-36.79	-.41	.21137	.67	7.72	181	
3	-2	0	1	2.40	2.31	2.14	-.89	.24101	.39	1.25	338	
3	-2	1	1	55.42	60.03	59.88	4.20	.27901	.09	.12	38	
3	-2	2	1	59.37	61.44	-61.42	-1.32	.32242	-4.61	-9.08	181	
3	-2	3	1	9.39	9.64	-9.64	.06	.36935	-2.07	-3.78	4	
3	-2	4	1						-.25	-.80	179	

W	K	L	GMP	F3	FC	A	B	STW/LW	DF	WAVE	ANGLE CALC	ANGLE STAT
3	-2	4	1	40.76	50.81	40.77	1.66	.41861	-.05	-.12	2	
3	-2	5	1	45.47	56.35	46.31	2.66	.44947	-.98	-1.27	1	
3	-2	6	1	9.58	8.82	-9.52	-.02	.52146	.76	1.94	181	
3	-2	7	1	7.83	8.54	8.54	.05	.57428	-.71	-1.41	0	
3	-2	8	1	4.61	4.29	-4.29	-.13	.62771	.32	.37	182	
3	-2	9	1	12.37	9.97	9.96	-.32	.68161	2.41	5.72	359	
3	-1	-14	1	4.93	5.91	5.91	.09	.66136	-1.01	-1.07	0	
3	-1	-13	1	2.54	5.54	-5.54	-.09	.60712	-3.00	-1.87	181	
3	-1	-12	1	2.21	2.44	-2.05	1.33	.55331	-.23	-.15	147	
3	-1	-11	1	21.86	22.17	22.16	.81	.50007	-.32	-1.24	2	
3	-1	-10	1	2.08	1.04	1.04	-.06	.44758	1.04	.70	357	
3	-1	-9	1	3.07	.58	.37	-.44	.39616	2.49	2.64	310	
3	-1	-8	1	46.31	46.03	45.78	4.79	.34629	.29	.68	5	
3	-1	-7	1	21.33	18.69	18.68	-.72	.29872	2.64	12.09	358	
3	-1	-6	1	14.96	13.97	13.97	-.03	.25476	.99	5.26	0	
3	-1	-5	1	30.26	25.02	-25.02	.60	.21663	5.23	15.71	178	
3	-1	-4	1	13.11	11.20	-11.19	-.32	.18789	1.91	11.27	182	
3	-1	-3	1	18.11	17.63	17.52	1.97	.17329	.48	2.22	8	
3	-1	-2	1	14.05	14.96	14.96	.17	.17638	-.91	-5.09	0	
3	-1	-1	1	31.42	30.49	30.49	-.16	.19632	.93	3.00	0	
3	-1	0	1	20.27	18.77	18.77	.09	.22875	1.51	7.05	0	
3	-1	1	1	91.71	91.76	91.64	4.56	.26919	-.04	-.08	2	
3	-1	2	1	19.64	20.36	-20.34	-.84	.31456	-.72	-3.72	183	
3	-1	3	1	28.36	27.34	27.34	.37	.36303	.52	1.95	0	
3	-1	4	1	5.91	5.74	-5.70	.65	.41350	.17	.33	173	
3	-1	5	1	41.50	40.98	-40.98	-.68	.46532	.51	1.45	181	
3	-1	6	1	49.40	49.42	49.37	2.19	.51810	-.02	-.04	2	
3	-1	7	1	22.16	21.25	21.25	-.45	.57155	.91	3.27	359	
3	-1	8	1	8.35	8.00	-7.98	-.54	.62552	.36	.69	184	
3	-1	9	1	12.75	11.92	11.91	.57	.67987	.83	1.99	2	
3	0	-14	1	15.09	15.32	15.31	.36	.65750	-.23	-.60	1	
3	0	-13	1	12.15	11.53	-11.48	-1.08	.60324	.62	1.59	186	
3	0	-12	1	64.61	65.11	64.97	4.30	.54939	-.50	-.90	3	
3	0	-11	1	18.35	18.30	18.29	.68	.49610	.06	.20	2	
3	0	-10	1	2.08	.44	.33	-.29	.44357	1.64	1.11	320	
3	0	-9	1	72.46	73.67	-73.67	-.74	.39211	-1.22	-1.96	181	
3	0	-8	1	38.53	37.98	37.89	2.53	.34219	.55	1.60	3	
3	0	-7	1	13.46	11.10	-11.09	-.35	.29460	2.36	10.94	182	
3	0	-6	1	54.60	50.96	-50.96	.04	.25067	3.64	7.59	179	
3	0	-5	1	1.57	2.13	-2.12	-.20	.21269	-.56	-.50	186	
3	0	-4	1	2.19	1.12	-.36	-1.06	.18436	1.07	1.39	252	
3	0	-3	1	259.60	262.85	262.79	5.60	.17056	-3.25	-5.96	1	
3	0	-2	1	19.98	20.93	-20.93	-.25	.17478	-.95	-4.04	181	
3	0	-1	1	36.90	35.41	35.41	.05	.19585	1.48	4.86	0	
3	0	0	1	31.84	32.83	32.82	.87	.22916	-.99	-3.55	1	
3	0	1	1	73.36	74.88	74.84	2.43	.27024	-1.52	-3.09	1	
3	0	2	1	17.13	17.94	-17.94	-.35	.31606	-.81	-4.07	182	
3	0	3	1	32.70	31.81	-31.81	-.11	.36484	.89	3.16	181	
3	0	4	1	4.31	3.75	3.75	-.25	.41554	.56	.84	181	
3	0	5	1	46.21	46.87	-46.85	-1.37	.46754	.56	.84	357	
3	0	6	1	81.81	82.53	82.42	4.23	.52045	-.66	-1.61	182	
3	0	7	1	3.82	.99	-.76	-.63	.57402	-.72	-.97	2	
3	0	8	1	13.76	13.73	13.73	.25	.62807	2.84	2.94	220	
3	0	9	1	3.18	2.31	2.09	.98	.68250	.85	.62	25	
3	-14	1	1	20.08	20.68	20.67	.47	.65817	-.60	-1.84	1	
3	-13	1	1	16.11	16.48	16.47	-.71	.60427	-.37	-1.10	358	

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	FC	FC	A	B	SWTH/L*	DF	WADF	ANGLE CALC	ANGLE STAT
3	42.12	42.06	41.86	4.06	.55087	.06	.17	183	
3	18.17	18.52	-19.50	-.73	.49811	-.34	-1.24	183	
3	12.92	12.14	-12.14	-.21	.44624	.78	2.52	182	
3	30.53	29.44	-29.44	-.27	.39560	1.06	4.08	181	
3	23.33	22.30	-22.30	-.41	.34673	1.02	4.60	182	
3	27.98	28.25	28.18	1.95	.30066	-.27	-1.06	3	
3	68.54	67.35	67.34	1.26	.25930	1.19	2.45	1	
3	10.12	7.90	7.89	-.23	.22247	2.22	10.07	359	
3	11.63	4.72	P.70	-.54	.19652	2.91	15.45	357	
3	162.35	160.35	160.26	5.44	.18466	2.00	5.07	1	
3	35.54	33.05	33.04	-.62	.18956	2.49	P.72	359	
3	27.43	24.23	-28.23	-.22	.21004	-.75	-2.74	181	
3	11.41	10.41	10.41	.27	.24219	1.00	4.89	1	
3	39.33	41.08	41.08	-.10	.28203	-2.71	-7.28	0	
3	28.54	29.15	28.07	2.14	.32678	.39	1.46	4	
3	11.12	11.39	-11.39	-.13	.37467	-.27	-.95	181	
3	21.04	20.57	-20.56	-.41	.42464	.47	2.05	182	
3	23.57	23.16	23.16	.31	.47604	.41	1.73	0	
3	56.20	55.25	55.11	4.00	.52846	.95	2.14	4	
3	39.29	38.81	-38.80	-.97	.58161	.48	1.36	182	
3	11.37	11.40	11.39	.34	.63531	-.03	-.06	1	
3	9.88	9.51	9.49	.59	.68944	.37	.68	3	
3	11.63	11.54	-11.53	-.41	.66333	.09	.20	183	
3	15.44	14.43	14.41	-.65	.61019	1.01	2.91	358	
3	20.07	20.06	19.96	2.00	.55770	.01	.03	5	
3	13.50	13.13	-13.12	-.38	.50603	.37	1.14	182	
3	12.07	12.45	12.43	.75	.45547	-.38	-1.16	3	
3	53.39	54.14	54.14	.82	.40645	-.75	-1.63	0	
3	21.87	21.20	-21.15	-1.41	.35958	.67	3.17	184	
3	58.13	58.13	57.96	4.35	.31583	.26	.47	4	
3	51.83	49.13	49.12	.69	.27667	2.70	5.28	0	
3	1.80	2.98	-2.98	-.17	.24433	-1.18	-1.07	184	
3	20.20	19.18	19.18	-.31	.22182	1.02	4.68	0	
3	22.34	20.35	20.27	1.73	.21227	1.99	7.89	4	
3	20.26	16.90	-16.90	.00	.21741	3.36	15.91	179	
3	15.12	17.34	17.33	.61	.23628	-2.22	-12.39	2	
3	16.83	19.14	19.14	.16	.26597	-2.31	-12.71	0	
3	27.02	27.04	-27.01	-1.34	.30333	-.02	-.09	183	
3	123.18	126.35	126.25	4.98	.34587	-3.17	-5.63	2	
3	21.73	20.96	20.96	.16	.39191	.77	3.60	0	
3	7.85	8.21	-8.21	-.16	.44036	.77	3.60	0	
3	3.62	1.34	-1.22	.53	.49050	-.37	-.88	182	
3	14.06	13.55	13.48	1.36	.54186	2.28	2.56	156	
3	10.01	8.62	-8.62	.09	.59413	.51	1.56	5	
3	7	7.15	-7.15	-.04	.64708	1.39	3.14	179	
3	2.53	.84	-.81	-.19	.70057	.28	.45	181	
3	4.64	1.63	-1.62	-.15	.67288	1.69	.94	194	
3	30.75	30.66	-30.66	-.43	.62087	3.01	3.20	186	
3	15.84	16.33	16.33	.13	.56969	.09	.32	181	
3	57.98	57.93	57.88	2.35	.51958	-.49	-1.51	0	
3	66.13	67.42	67.39	1.94	.47088	.05	.12	2	
3	31.80	30.78	30.78	.45	.42409	-1.29	-2.57	1	
3	29.44	29.91	-29.87	-1.57	.37990	1.02	3.76	0	
3	97.86	97.40	-97.29	4.50	.33933	-.47	-1.84	184	
3	49.68	48.79	-48.78	-.78	.30385	.47	.83	2	
3	11.48	10.87	-10.86	-.30	.27542	.89	2.32	181	
3						.61	2.66	182	

U	K	L	CR2	FD	FC	I	B	SINT/FLM	NR	WDRF	ANGLE CALC	ANGLE STAT
3	3	-4	1	72.75	71.57	-71.57	-.41	.25639	1.19	2.49	181	
3	3	-1	1	34.83	32.12	-32.11	-.70	.24893	2.71	7.62	182	
3	3	-2	1	96.01	43.43	95.39	2.72	.25407	-.49	-.89	1	
3	3	-1	1	48.49	49.68	49.66	1.22	.27105	-1.19	-2.34	1	
3	3	0	1	15.29	14.51	14.51	.11	.29796	.79	3.87	0	
3	3	1	1	29.16	30.44	-30.43	-.74	.39229	-1.29	-4.79	182	
3	3	2	1	163.51	165.79	165.72	4.58	.37204	-3.20	-5.59	1	
3	3	3	1	22.34	22.94	-22.94	-.57	.41564	-.60	-2.71	182	
3	3	4	1	7.89	6.91	6.91	-.05	.46201	.89	2.05	0	
3	3	5	1	3.49	2.31	-2.31	.02	.51040	1.18	1.21	178	
3	3	6	1	22.71	23.03	-23.02	-.88	.56927	-.33	-1.19	183	
3	3	7	1	26.00	25.71	25.61	2.21	.61128	.20	1.02	4	
3	3	8	1	2.48	1.19	1.18	.11	.66315	1.30	.73	5	
3	3	-14	1	13.45	12.69	12.65	1.11	.68465	.75	1.82	5	
3	3	-13	1	6.47	7.67	7.63	.71	.63606	-1.20	-1.75	5	
3	3	-12	1	22.32	22.99	22.97	-.96	.58653	-.67	-2.32	358	
3	3	-11	1	53.85	54.96	54.84	3.70	.53834	-1.11	-2.46	3	
3	3	-10	1	10.95	9.53	9.48	.99	.49189	1.43	4.02	5	
3	3	-9	1	5.30	4.68	4.67	-.31	.44772	.62	.98	357	
3	3	-8	1	12.86	13.77	13.74	-.91	.40657	-.91	-3.18	357	
3	3	-7	1	31.45	32.03	31.98	1.84	.36946	-.58	-1.99	3	
3	3	-6	1	48.67	47.69	47.69	-.25	.33772	.99	2.42	181	
3	3	-5	1	7.00	7.38	7.31	1.03	.31298	-.38	-1.04	8	
3	3	-4	1	3.16	.67	.57	.35	.29701	2.49	3.59	31	
3	3	-3	1	48.93	43.23	-48.20	-1.54	.29125	.75	1.42	182	
3	3	-2	1	197.75	158.47	158.40	4.70	.29629	-.72	-1.41	1	
3	3	-1	1	34.10	34.17	34.17	.73	.31161	-.07	-.22	181	
3	3	0	1	29.98	30.95	-30.95	-.46	.32580	-.98	-3.57	1	
3	3	1	1	3.39	.58	.48	-.33	.36713	2.81	3.73	326	
3	3	2	1	58.50	60.56	60.53	1.84	.44392	-2.05	-3.23	1	
3	3	3	1	11.37	9.26	9.26	.22	.44483	2.10	6.40	1	
3	3	4	1	5.45	4.61	-4.59	.39	.48882	.84	1.35	175	
3	3	5	1	10.10	9.05	9.05	.03	.52514	1.05	2.60	0	
3	3	6	1	65.68	63.03	62.90	-.74	.58322	-.02	-.07	359	
3	3	7	1	19.12	18.21	-18.21	3.96	.63268	2.65	4.30	3	
3	3	8	1	24.33	24.80	24.74	-.23	.68320	.91	2.57	181	
3	3	-14	1	13.87	14.15	14.15	1.78	.70438	-.47	-1.44	4	
3	3	-13	1	25.79	26.14	-26.05	.48	.65545	-.28	-.71	1	
3	3	-12	1	27.57	27.58	27.40	-2.10	.60781	-.44	-1.56	185	
3	3	-11	1	8.74	8.93	-8.92	3.10	.56179	-.01	-.02	6	
3	3	-10	1	21.09	20.70	-20.70	-.31	.51781	-.19	-.43	182	
3	3	-9	1	34.09	34.76	34.76	-.09	.47644	.39	1.56	181	
3	3	-8	1	2.27	.89	.84	.42	.43843	-.67	-2.23	0	
3	3	-7	1	68.59	67.40	67.36	.30	.40472	1.38	1.07	200	
3	3	-6	1	43.88	43.18	43.14	2.39	.37647	1.38	1.95	0	
3	3	-5	1	53.97	52.32	52.31	1.82	.35498	1.19	1.61	2	
3	3	-4	1	25.65	26.02	-25.96	.77	.34153	.69	1.61	2	
3	3	-3	1	9.64	7.93	7.93	-1.69	.33709	1.65	2.85	0	
3	3	-2	1	9.93	10.36	-10.35	3.32	.34200	-.37	-1.39	184	
3	3	-1	1	32.73	33.79	33.79	-.49	.35589	1.71	5.78	24	
3	3	0	1	23.88	24.24	24.24	.11	.37775	-.43	-1.37	183	
3	3	1	1	64.71	65.79	65.77	.09	.40632	-1.05	-3.23	0	
3	3	2	1	72.08	72.78	72.72	-1.24	.44027	-.35	-1.56	0	
3	3	3	1	55.31	55.71	55.69	2.88	.47847	-1.08	-1.60	182	
3	3	4	1	3.24	.51	.48	1.43	.51999	-.70	-1.00	2	
3	3	5	1				.16	.56408	-.41	-.92	1	
3	3	5	L						2.73	2.46	18	

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K	L	CRP	FG	FC	A	P	SINTH/LW	DF	W*DF	ANGLE CALC	ANGLE STAT
4	-12	1	10.83	12.40	10.38	.57	.70203	.44	.97	3	
4	-11	1	22.40	22.15	-22.07	-1.95	.70239	.25	.75	186	
4	-11	1	11.52	12.76	10.72	.92	.67700	.76	1.79	4	
4	-11	1	6.84	6.92	6.63	1.59	.65549	.02	.03	13	
4	-11	1	31.33	31.32	31.29	1.32	.65824	.06	.23	2	
4	-11	1	19.31	19.40	19.59	.71	.62562	-.29	-.91	2	
4	-11	1	35.69	32.49	-32.48	-1.00	.61789	1.20	4.11	182	
4	-11	1	7.60	7.13	7.13	.26	.61525	.47	.81	177	
4	-11	1	21.76	19.51	19.50	.47	.61775	2.26	7.56	1	
4	-11	1	40.92	35.76	38.71	-.04	.62536	2.16	5.95	3	
4	-11	1	55.46	54.13	-54.07	-2.62	.62786	1.33	2.58	183	
4	-11	1	40.77	17.46	17.43	.95	.65500	-.69	-1.94	3	
4	-11	1	40.51	40.73	40.68	2.03	.67641	-.23	-.62	2	
4	-11	1	36.67	35.66	35.65	1.09	.70170	1.01	3.52	1	
4	-10	1	24.60	24.70	24.59	2.34	.68754	-.10	-.32	5	
4	-10	1	7.97	7.35	-7.30	-.85	.65705	.62	1.05	187	
4	-10	1	45.08	45.23	45.22	1.09	.63014	-.15	-.40	1	
4	-10	1	21.43	22.54	22.51	1.13	.60728	-1.11	-3.71	2	
4	-10	1	11.51	11.63	-11.63	-.04	.58894	-.13	-.32	181	
4	-10	1	3.32	1.63	-.51	1.55	.57556	1.69	1.65	108	
4	-10	1	12.30	13.43	-13.28	-2.01	.56494	-1.06	-2.90	189	
4	-10	1	2.27	.27	-.25	.10	.56494	1.06	1.23	157	
4	-10	1	3.35	3.56	-3.40	1.05	.56800	-.21	-.18	162	
4	-10	1	35.55	34.36	34.31	1.57	.57658	1.19	3.66	3	
4	-10	1	17.52	15.78	-15.77	-.64	.59044	1.74	5.64	183	
4	-10	1	10.94	10.19	10.15	.82	.60922	.76	1.85	4	
4	-10	1	13.32	12.84	12.78	1.24	.63248	.48	1.28	5	
4	-10	1	35.58	35.28	35.28	.69	.65975	.30	.93	1	
4	-10	1	20.05	19.37	19.29	1.69	.69054	.68	1.99	5	
4	-10	1	26.19	25.88	25.83	1.55	.68090	.32	1.03	3	
4	-9	1	26.26	27.52	27.48	1.37	.64548	-1.26	-4.24	2	
4	-9	1	27.91	27.97	27.96	.77	.61322	-.06	-.21	1	
4	-9	1	23.33	23.01	-23.00	-.93	.58461	.31	1.13	183	
4	-9	1	14.21	13.79	13.79	.06	.56023	.42	1.27	0	
4	-9	1	6.37	7.14	7.14	.26	.54064	-.77	-1.32	2	
4	-9	1	37.52	38.24	38.13	2.82	.52639	-.72	-2.17	4	
4	-9	1	31.95	31.45	-31.39	-2.07	.51791	.49	1.70	184	
4	-9	1	3.14	3.59	3.49	.85	.51549	-.46	-.42	13	
4	-9	1	22.03	22.20	22.12	1.86	.51921	-.17	-.66	4	
4	-9	1	4.66	4.58	4.50	.83	.52894	.08	.11	10	
4	-9	1	37.21	35.93	35.91	1.24	.54436	1.28	3.88	1	
4	-9	1	18.58	19.29	-19.26	-.93	.56501	-.71	-2.39	183	
4	-9	1	13.10	14.37	-14.37	.06	.59033	-1.27	-3.53	179	
4	-9	1	6.09	4.85	-4.84	.35	.61975	1.24	1.89	175	
4	-9	1	49.62	48.86	48.80	2.23	.65273	.76	1.87	2	
4	-9	1	2.47	3.12	2.55	-1.81	.68874	-.65	-.37	325	
4	-8	1	2.52	.21	.04	.20	.68270	2.31	1.28	78	
4	-8	1	19.92	19.95	-19.95	.18	.64275	-.03	-.08	179	
4	-8	1	4.15	1.36	1.35	-.16	.60543	2.79	2.95	354	
4	-8	1	36.81	37.76	37.68	2.40	.57123	-.95	-2.93	3	
4	-8	1	49.52	50.82	-50.78	-2.00	.54075	-1.29	-2.84	183	
4	-8	1	9.51	9.94	9.94	.13	.51466	-1.44	-1.07	0	
4	-8	1	56.15	57.55	57.52	1.69	.49365	-1.39	-2.67	1	
4	-8	1	98.26	98.36	98.31	3.29	.47839	-.10	-.15	1	
4	-8	1	45.96	46.74	-46.73	-.92	.46945	-.77	-1.85	182	
4	-8	1	2.10	1.73	-1.65	.53	.46717	.37	.25	162	

K	L	GRP	FD	FC	A	B	SINTH/LM	DF	W*DF	ANGLE CALC
4	-5	1	21.11	21.78	21.77	.64	.42430	-.67	-2.90	182
4	-5	1	44.10	43.38	-43.38	-.80	.39195	.71	1.91	182
4	-5	1	51.86	50.30	-50.29	-.88	.36547	1.56	3.69	181
4	-5	1	28.44	29.00	29.00	.20	.34621	-.56	-1.97	0
4	-5	1	177.57	176.05	175.98	5.05	.33543	1.52	2.76	1
4	-5	1	50.58	50.39	-50.36	-1.71	.33394	.19	.48	182
4	-5	1	26.08	23.97	23.86	.70	.34186	2.21	8.59	1
4	-5	1	54.42	53.61	53.57	1.91	.35857	.81	1.36	2
4	-5	1	58.20	58.74	58.73	1.20	.38292	-.53	-.87	1
4	-5	1	13.56	13.40	-13.36	.98	.41357	.16	.62	175
4	-5	1	45.02	46.42	-46.40	-1.28	.44922	1.40	-3.49	192
4	-5	1	12.82	13.25	-13.24	-.42	.48879	-.43	-1.40	182
4	-5	1	2.91	1.96	1.94	.27	.53139	.95	.88	7
4	-5	1	48.91	49.89	49.78	3.09	.57637	-.97	-2.33	3
4	-5	1	28.52	27.51	-27.45	-1.79	.62319	1.01	3.62	184
4	-5	1	26.94	26.78	26.76	.96	.67148	.16	.54	2
4	-4	1	47.78	48.70	48.69	.99	.66637	-.93	-2.62	1
4	-4	1	36.63	36.35	36.22	3.08	.61636	.28	.93	4
4	-4	1	20.00	19.51	-19.49	-.92	.56755	.49	1.69	183
4	-4	1	10.16	14.39	14.39	.24	.52026	-.23	-.71	0
4	-4	1	10.69	11.53	11.53	.18	.47496	-.84	-2.27	0
4	-4	1	24.59	24.24	-24.22	-1.05	.43226	.34	1.42	183
4	-4	1	27.90	28.82	28.65	3.13	.39302	-.92	-3.44	6
4	-4	1	2.23	1.36	1.18	-.68	.35838	.87	.76	331
4	-4	1	2.09	.61	.60	-.09	.32978	.87	1.34	352
4	-4	1	23.96	23.17	23.14	1.23	.30892	.79	3.46	3
4	-4	1	98.65	96.78	96.72	3.31	.29742	1.87	3.63	1
4	-4	1	15.68	14.78	-14.77	-.38	.29637	.90	4.69	182
4	-4	1	5.44	6.09	6.08	.34	.30588	-.65	-1.61	3
4	-4	1	5.41	4.92	4.91	.21	.32503	.49	1.16	2
4	-4	1	11.56	10.75	10.73	-.60	.35225	.81	3.16	357
4	-4	1	58.81	61.00	60.91	3.35	.38583	-2.19	-3.56	3
4	-4	1	11.44	9.60	-9.47	-1.58	.42427	1.84	6.32	190
4	-4	1	4.05	2.42	2.42	-.09	.46636	1.63	2.26	358
4	-4	1	42.39	42.96	42.93	1.70	.51121	-.58	-1.50	2
4	-4	1	34.31	34.41	34.33	2.25	.55815	-.09	-.31	3
4	-4	1	12.25	12.02	-12.02	-.24	.60669	.23	.59	182
4	-4	1	10.83	9.66	9.65	.33	.65648	1.17	2.65	1
4	-3	1	.20	6.98	-6.98	-.24	.70164	1.22	1.95	182
4	-3	1	4.37	4.67	-4.66	.17	.64975	-.30	-.29	177
4	-3	1	22.01	22.36	22.35	.68	.59867	-.35	-1.19	1
4	-3	1	32.60	32.20	32.18	1.09	.54863	-.35	-1.19	1
4	-3	1	13.76	13.59	-13.59	.05	.49993	.16	1.41	179
4	-3	1	11.98	12.13	12.13	-.15	.45301	-.14	-.44	0
4	-3	1	29.69	30.65	-30.64	5.31	.40849	-.95	-3.24	181
4	-3	1	156.05	153.74	153.65	-1.00	.36722	2.31	3.96	1
4	-3	1	8.84	10.16	-10.11	.13	.33045	-1.32	-4.23	186
4	-3	1	11.44	12.10	-12.10	.13	.29983	-.66	-2.77	179
4	-3	1	29.16	29.62	-29.61	.75	.27739	-.46	-1.46	178
4	-3	1	6.63	7.76	-7.75	.28	.26523	-1.13	-3.62	177
4	-3	1	63.79	64.37	64.36	1.54	.26477	-.58	-1.19	1
4	-3	1	26.62	26.54	-26.53	-.68	.27606	.08	.30	182
4	-3	1	12.12	12.32	12.31	-.47	.29777	-.20	-.92	358
4	-3	1	10.64	9.64	9.64	.05	.32783	1.00	3.92	0
4	-3	1	164.72	170.91	170.84	4.98	.36419	-6.19	-10.69	1
4	-3	1	10.55	11.50	-11.44	-1.16	.40516	-.95	-3.10	186

ANGLE
STAT

H	K	L	GPP	FQ	FC	A	B	SINHL/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
4	-3	3	1	20.65	21.02	21.01	*.64	.44946	-.36	-1.54	182	
4	-3	4	1	19.94	19.47	19.42	1.39	.49622	.47	1.85	1	
4	-3	5	1	3.28	1.62	-1.62	*.17	.54480	1.66	1.65	4	
4	-3	6	1	19.44	18.72	18.66	1.52	.59475	.72	2.41	173	
4	-3	7	1	21.53	21.59	-21.57	-1.05	.64576	-.07	-.22	4	
4	-3	8	1	13.15	13.23	-13.21	-.59	.69759	-.08	-.19	183	
4	-2	15	1	19.07	18.46	-18.46	-.09	.68992	.61	1.72	183	
4	-2	14	1	12.43	13.20	-13.20	-1.17	.63738	-.77	-1.82	181	
4	-2	13	1	7.93	7.17	7.14	-.60	.58554	.82	1.58	356	
4	-2	12	1	71.29	71.83	71.73	3.72	.53462	-.54	-1.00	2	
4	-2	11	1	7.68	7.45	7.45	.26	.48491	.22	.47	2	
4	-2	10	1	12.94	12.65	12.65	.06	.43681	.29	.94	0	
4	-2	9	1	34.56	33.72	33.72	.62	.39092	.84	2.51	1	
4	-2	8	1	109.23	106.77	106.71	3.60	.34812	2.51	4.43	1	
4	-2	7	1	51.40	49.11	-49.10	-.92	.30970	2.29	4.24	182	
4	-2	6	1	1.70	2.12	2.11	.09	.27746	-.42	-.34	2	
4	-2	5	1	8.70	8.37	-8.36	-.41	.25379	.33	1.29	183	
4	-2	4	1	26.42	26.14	-26.11	-1.11	.24122	2.29	.55	183	
4	-2	3	1	118.67	118.41	119.34	4.19	.24149	.25	-2.41	2	
4	-2	2	1	18.83	19.32	-19.30	-.85	.25456	-.49	-2.41	183	
4	-2	1	1	21.35	21.90	-21.90	-.26	.27863	-.52	-2.36	181	
4	-2	0	1	54.70	55.16	55.14	1.43	.31115	-.46	-.94	1	
4	-2	1	1	177.97	184.91	184.88	3.69	.34980	-6.94	-12.28	1	
4	-2	2	1	26.25	27.64	-27.64	-.47	.39275	-1.39	-5.27	181	
4	-2	3	1	19.52	20.43	-20.43	.03	.43874	-.91	-3.87	179	
4	-2	4	1	2.08	.25	-.24	.08	.48692	1.82	1.23	358	
4	-2	5	1	11.29	11.72	11.71	-.50	.53669	-.44	-1.19	162	
4	-2	6	1	19.27	18.77	18.57	2.98	.58765	.51	1.72	9	
4	-2	7	1	42.65	42.11	-42.07	-1.66	.63952	.54	1.59	183	
4	-2	8	1	12.61	11.58	11.58	.09	.69209	1.03	2.39	0	
4	-1	15	1	4.53	5.50	-5.46	.68	.68238	-.98	-.93	172	
4	-1	14	1	15.91	15.36	-15.36	-.04	.622951	.55	1.56	181	
4	-1	13	1	8.23	7.99	7.98	-.53	.57729	.23	.47	357	
4	-1	12	1	80.04	81.05	80.91	4.70	.52593	-1.01	-1.35	3	
4	-1	11	1	9.75	8.70	8.68	-.53	.47570	1.05	2.77	357	
4	-1	10	1	6.52	5.13	5.13	-.12	.42701	1.39	2.81	359	
4	-1	9	1	65.34	64.82	64.82	.78	.38043	.51	.84	0	
4	-1	8	1	11.94	11.56	-11.56	.11	.33686	.38	1.44	179	
4	-1	7	1	5.77	3.49	-3.31	1.11	.29761	2.28	5.60	161	
4	-1	6	1	34.35	34.14	34.13	.50	.26462	.22	.73	0	
4	-1	5	1	27.11	25.64	25.64	-.06	.24047	1.47	4.97	0	
4	-1	4	1	19.71	20.44	-20.44	-.58	.22799	-.74	-3.34	182	
4	-1	3	1	178.00	171.50	171.43	4.95	.22910	6.50	14.67	1	
4	-1	2	1	10.11	8.96	8.94	-.63	.24361	1.15	5.18	356	
4	-1	1	1	3.60	3.57	-3.57	.21	.26936	.03	.05	176	
4	-1	0	1	10.60	9.87	-9.85	.70	.30351	.73	3.02	175	
4	-1	1	1	32.37	32.80	-32.80	-.16	.34356	-.43	-1.40	181	
4	-1	2	1	50.41	52.82	52.78	1.92	.38768	-.41	-5.46	2	
4	-1	3	1	14.57	15.22	15.22	-.27	.43465	-.66	-2.41	359	
4	-1	4	1	14.68	14.87	-14.86	-.62	.48362	-.19	-.67	183	
4	-1	5	1	11.77	11.46	11.46	.26	.53405	.30	.36	1	
4	-1	6	1	68.59	68.27	68.15	4.03	.58556	.32	.55	3	
4	-1	7	1	5.96	3.81	-3.70	-.89	.63790	2.16	2.96	194	
4	-1	8	1	7.97	5.16	-5.15	.26	.69086	2.81	4.74	177	
4	-1	9	1	26.02	26.08	26.05	1.03	.67915	-.06	-.19	2	
4	-1	10	1	2.41	4.04	-4.03	-.31	.62630	-1.63	-.95	185	

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H	K	L	GRP	FD	FC	A	B	SINTH/LW	DC	W*DF	ANGLE CALC	ANGLE STAT
4	0	-13	1	37.04	36.65	-36.64	-.99	.57412	.39	1.29	182	
4	0	-12	1	57.15	56.88	-56.80	3.02	.52281	.27	.61	182	
4	0	-11	1	8.15	8.14	-8.12	-.55	.47265	.02	.03	184	
4	0	-10	1	4.06	1.78	-1.79	.06	.42405	2.28	3.00	178	
4	0	-9	1	2.85	1.64	1.64	.03	.37761	1.22	1.30	0	
4	0	-8	1	8.56	7.98	7.92	-.93	.33423	.58	1.80	353	
4	0	-7	1	199.86	195.01	194.95	4.89	.29527	4.85	9.47	1	
4	0	-6	1	35.44	25.07	-25.07	.14	.26270	.37	1.32	179	
4	0	-5	1	3.93	1.76	-1.76	.02	.23914	2.17	4.35	179	
4	0	-4	1	17.57	15.12	15.12	.37	.22742	2.45	11.32	1	
4	0	-3	1	138.44	134.48	134.44	3.04	.222935	3.96	8.94	1	
4	0	-2	1	75.13	74.84	-74.84	-.73	.24461	.29	.63	181	
4	0	-1	1	12.37	11.78	-11.78	.10	.27097	.59	2.82	179	
4	0	0	1	18.77	19.03	-19.03	-.22	.30555	.29	2.82	179	
4	0	0	1	82.18	85.04	-85.02	-1.66	.34591	-.26	-1.28	181	
4	0	0	1	106.33	109.98	109.89	4.46	.39025	-2.85	-5.05	182	
4	0	0	1	19.15	20.06	20.05	-.30	.43737	-3.66	-5.01	2	
4	0	0	1	19.63	20.20	20.20	.08	.48645	-.91	-3.72	0	
4	0	0	1	14.63	14.34	14.31	.90	.53697	-.57	-2.25	0	
4	0	0	1	70.26	70.92	70.87	.61	.58855	.29	.92	3	
4	0	0	1	10.77	11.64	11.64	2.61	.64093	.66	-1.14	2	
4	0	0	1	14.67	13.49	-13.49	-.11	.69394	-.87	-1.84	0	
4	0	-15	1	2.49	1.59	-1.56	-.28	.68029	1.18	2.94	181	
4	0	-14	1	4.26	4.27	4.25	-.34	.62784	.90	.51	191	
4	0	-13	1	29.75	30.03	-30.02	-.56	.57612	-.00	-.00	356	
4	0	-12	1	2.20	1.84	-1.84	.17	.52537	.35	.23	182	
4	0	-11	1	24.44	24.79	24.75	1.32	.47587	-.35	-1.45	174	
4	0	-10	1	10.61	9.97	9.90	1.25	.42807	.63	1.86	3	
4	0	-9	1	19.09	19.03	-19.03	-.10	.38261	.06	.28	181	
4	0	-8	1	3.96	2.88	2.78	-.75	.34043	1.09	1.68	181	
4	0	-7	1	229.62	224.75	224.68	5.62	.30289	4.87	9.38	345	
4	0	-6	1	14.54	15.25	-15.24	-.51	.27193	4.87	9.38	182	
4	0	-5	1	16.90	17.53	-17.52	-.30	.25000	-.71	-3.56	182	
4	0	-4	1	22.45	18.90	-18.90	.19	.23960	3.55	14.85	181	
4	0	-3	1	14.42	11.14	-11.14	.12	.24221	3.28	17.41	179	
4	0	-2	1	34.65	34.85	34.82	1.52	.25744	-.20	-.54	2	
4	0	-1	1	5.27	5.08	5.07	.28	.28327	.19	.48	3	
4	0	0	1	21.83	21.32	-21.81	-.43	.31710	.01	.48	182	
4	0	0	1	8.69	8.86	8.85	-.28	.35668	-.17	-.51	182	
4	0	0	1	120.08	125.40	125.30	4.84	.40030	-.17	-.51	359	
4	0	0	1	31.16	31.61	-31.60	-.80	.44678	-5.31	-8.60	2	
4	0	0	1	11.31	9.54	9.54	.19	.49531	-.45	-1.51	182	
4	0	0	1	21.79	21.53	21.52	.70	.54535	1.77	5.25	1	
4	0	0	1	24.84	24.52	24.52	.04	.59652	.26	.96	1	
4	0	0	1	16.23	15.10	15.02	1.60	.64855	.32	1.12	0	
4	0	0	1	5.04	5.32	-5.31	-.30	.70125	1.13	3.11	6	
4	0	0	1	4.34	5.39	-5.37	-.46	.68578	-.28	-.29	184	
4	0	0	1	8.90	8.12	-8.10	.51	.63408	-1.04	1.51	176	
4	0	0	1	25.31	25.82	25.81	.63	.58324	.78	1.51	1	
4	0	0	1	29.35	29.40	-29.37	-1.31	.53351	-.51	-1.88	1	
4	0	0	1	65.11	65.08	64.97	3.77	.48524	-.04	-.17	183	
4	0	0	1	5.86	3.76	3.63	.97	.43889	.03	.06	3	
4	0	0	1	17.01	17.87	-17.87	-.24	.39516	2.11	3.77	14	
4	0	0	1	16.30	15.86	15.85	-.53	.35500	-.86	-3.58	181	
4	0	0	1	43.45	42.55	42.47	2.51	.31976	.44	1.92	359	
4	0	0	1	6.18	7.49	7.48	-.36	.29125	.90	2.25	3	
4	0	0	1						-1.31	-3.35	358	

U	K	L	GRP	FD	FC	A	E	SINTH/L*	DF	W*DF	ANGLE CALC
4	2	-5	1	13.59	13.95	13.94	.49	.27159	-.36	-1.74	2
4	2	-4	1	54.39	54.20	54.20	.50	.26276	.19	.38	0
4	2	-3	1	49.00	47.79	-47.77	-1.47	.26585	.20	.41	182
4	2	-2	1	111.11	113.27	113.13	4.52	.28047	-2.16	-4.33	2
4	2	-1	1	20.13	19.25	19.24	.47	.30497	.89	3.93	1
4	2	0	1	13.69	12.66	12.66	-.08	.33719	1.03	4.41	0
4	2	1	1	24.76	23.82	23.82	.22	.37515	.94	3.86	0
4	2	2	1	27.73	27.50	27.43	2.00	.41730	.23	.92	4
4	2	3	1	6.39	3.45	3.45	-.10	.46248	2.94	5.81	359
4	2	4	1	9.55	9.69	-9.69	.14	.50989	-.13	-.32	179
4	2	5	1	18.95	18.54	-18.54	-.15	.55896	.31	1.09	181
4	2	6	1	25.42	24.74	-24.71	-1.22	.60929	.68	2.40	183
4	2	7	1	65.53	63.13	63.02	3.82	.66060	2.40	4.58	3
4	2	8	1	29.22	29.30	29.26	1.48	.69551	-.07	-.23	2
4	3	-15	1	34.80	35.27	35.21	1.93	.64488	-.46	-1.69	3
4	3	-14	1	10.58	9.47	9.45	.57	.59529	1.11	2.75	3
4	3	-13	1	52.13	53.23	-53.19	-1.96	.54700	-1.10	-2.39	183
4	3	-12	1	90.26	89.69	89.59	4.26	.50041	.57	.78	2
4	3	-11	1	13.73	13.50	13.49	-.25	.45602	.24	.80	359
4	3	-10	1	21.80	20.90	-20.89	-.45	.41455	.90	3.99	182
4	3	-9	1	72.26	71.07	-71.07	-.71	.37697	1.19	1.96	181
4	3	-8	1	2.42	1.21	-1.21	-.05	.34454	1.21	1.19	183
4	3	-7	1	89.25	86.94	86.92	2.18	.31884	1.21	4.23	1
4	3	-6	1	36.59	36.51	36.48	1.37	.30161	.08	.24	2
4	3	-5	1	31.46	30.24	30.24	.33	.29433	1.22	3.79	0
4	3	-4	1	13.33	11.97	11.93	-.98	.29773	1.36	6.30	356
4	3	-3	1	189.32	196.28	196.21	5.22	.31146	-6.96	-13.23	1
4	3	-2	1	42.94	43.99	-43.99	-.65	.33425	-1.05	-2.57	181
4	3	-1	1	10.24	9.14	9.14	-.07	.36440	1.10	3.70	0
4	3	0	1	23.38	23.19	-23.19	-.00	.40026	.19	.77	181
4	3	1	1	41.27	42.38	-42.37	-.75	.44043	-1.11	-3.15	182
4	3	2	1	20.53	20.88	20.81	1.80	.48384	-.36	-1.41	4
4	3	3	1	11.63	11.49	11.48	.55	.52970	.14	.38	2
4	3	4	1	2.86	.76	.75	-.10	.57742	2.10	1.66	353
4	3	5	1	33.49	32.51	-32.50	-.74	.62657	.98	3.29	182
4	3	6	1	60.81	59.65	59.65	3.93	.57685	1.16	2.50	3
4	3	7	1	20.81	21.08	21.04	1.28	.56004	-.27	-.81	3
4	4	-14	1	4.45	2.97	2.97	-.10	.61198	1.48	1.66	359
4	4	-13	1	4.06	4.36	-4.17	1.30	.56545	.49	.64	198
4	4	-12	1	28.70	29.05	28.98	2.01	.52087	-.35	-1.44	3
4	4	-11	1	25.30	24.19	-24.19	-.40	.47878	1.11	4.72	181
4	4	-10	1	25.92	26.11	26.09	.96	.43989	-.18	-.72	2
4	4	-9	1	13.35	11.62	-11.62	.27	.40513	1.73	6.11	178
4	4	-8	1	37.05	36.81	-36.78	-1.50	.37565	.24	.74	183
4	4	-7	1	132.30	131.32	131.25	4.39	.35277	.98	1.72	1
4	4	-6	1	38.08	36.55	36.53	1.22	.33783	1.52	4.45	1
4	4	-5	1	39.96	39.79	-39.79	-.52	.33191	.17	.41	181
4	4	-4	1	7.32	7.42	-7.39	-.65	.33549	-.10	-.26	186
4	4	-3	1	126.78	129.54	129.52	2.70	.34827	-2.76	-4.87	1
4	4	-2	1	3.99	3.96	-3.96	.17	.36930	.02	.03	183
4	4	-1	1	43.12	44.80	-44.80	.23	.39728	-1.68	-3.61	179
4	4	0	1	15.88	16.80	-16.80	.10	.43084	-.92	-3.48	179
4	4	1	1	14.97	14.75	14.71	-.99	.46880	.22	.76	357
4	4	2	1	45.31	45.13	44.96	3.89	.51017	.18	.4	4
4	4	3	1	20.00	19.39	-19.39	.08	.55419	.61	2.14	4
4	4	4	1	2.37	3.08	3.08	-.14	.60027	-.71	-.42	358

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H	K	L	GRP	FD	FC	A	P	SIN/H/L/M	DF	WDF	ANGLE CALC	ANGLE STAT
4	4	6	1	17.56	17.05	17.65	.29	.64790	-.09	-.25	185	
4	4	7	1	14.65	13.86	13.79	1.46	.69699	.78	1.91	0	
4	5	-14	1	5.24	6.07	-6.07	-.13	.67924	-.83	-.90	6	
4	5	-13	1	6.82	5.11	-5.11	-.11	.63294	1.70	2.66	182	
4	5	-12	1	38.24	38.07	38.07	.24	.58839	1.57	4.12	0	
4	5	-11	1	11.11	9.54	-9.54	.03	.54604	1.57	4.12	179	
4	5	-10	1	24.69	25.10	25.05	1.55	.50641	-.41	-1.66	3	
4	5	-9	1	21.39	21.73	21.65	1.87	.47022	-.33	-1.34	4	
4	5	-8	1	55.55	56.11	56.10	.97	.43821	-.56	-1.15	0	
4	5	-7	1	60.42	69.71	69.67	-2.12	.41166	-.29	-.45	182	
4	5	-6	1	59.46	57.49	57.38	3.57	.39138	1.96	3.13	3	
4	5	-5	1	4.95	1.15	-1.13	-.20	.37847	3.80	6.64	190	
4	5	-4	1	4.53	2.22	-2.22	-.08	.37370	2.36	3.86	182	
4	5	-3	1	6.23	4.89	-4.89	-.10	.37370	1.33	2.93	182	
4	5	-2	1	55.48	56.25	-56.24	-.70	.38927	-.76	-1.72	181	
4	5	-1	1	78.76	81.26	91.23	2.43	.40865	-2.50	-3.96	1	
4	5	0	1	39.64	40.03	40.00	1.53	.43453	-.39	-1.13	2	
4	5	1	1	17.54	18.61	18.61	.38	.46582	-1.07	-1.07	1	
4	5	2	1	21.07	21.13	-21.10	-1.11	.50151	-.06	-.22	184	
4	5	3	1	60.16	61.22	61.10	3.83	.54073	-1.07	-1.90	3	
4	5	4	1	2.29	2.19	-2.17	-.34	.58277	-.10	.05	189	
4	5	5	1	14.10	14.48	-14.48	-.28	.62706	-.39	-1.01	3	
4	5	6	1	4.87	3.09	3.09	.12	.67315	1.77	1.93	182	
4	6	6	1	18.44	18.24	18.24	.29	.70217	.20	.55	0	
4	6	-13	1	22.78	23.44	23.44	1.40	.35777	-.66	-2.08	3	
4	6	-12	1	8.54	9.85	9.81	.87	.61533	-1.31	-2.48	5	
4	6	-11	1	17.49	17.33	-17.28	-1.28	.57529	.16	.52	185	
4	6	-10	1	92.77	92.68	92.61	3.52	.53817	.09	.12	2	
4	6	-9	1	14.07	12.62	12.57	1.15	.50464	1.45	4.64	5	
4	6	-8	1	24.19	24.96	-24.96	-.18	.47544	-.77	-3.22	181	
4	6	-7	1	35.21	34.27	-34.23	-1.76	.45141	.94	2.85	183	
4	6	-6	1	33.25	31.15	31.10	1.78	.43342	-.91	-3.02	3	
4	6	-5	1	26.70	26.26	-26.26	-.18	.42225	.44	1.67	181	
4	6	-4	1	5.08	5.24	5.12	1.08	.41843	-.16	-.26	30	
4	6	-3	1	2.71	1.11	.95	.57	.42216	1.60	1.41	183	
4	6	-2	1	33.65	34.76	-34.72	-1.64	.43326	-1.11	-3.42	2	
4	6	-1	1	97.56	99.96	99.87	4.21	.45118	.05	.15	0	
4	6	0	1	40.18	40.18	40.16	1.07	.47514	.00	.00	1	
4	6	1	1	14.15	14.11	14.11	.03	.50429	.23	.85	183	
4	6	2	1	21.25	21.01	-21.00	-.87	.53778	.05	.15	0	
4	6	3	1	42.16	42.31	42.28	1.64	.57486	-.15	-.39	2	
4	6	4	1	2.38	1.50	1.50	.09	.61487	.88	.52	3	
4	6	5	1	6.57	5.32	-5.30	.49	.65728	1.25	1.75	174	
4	6	6	1	16.36	15.59	-15.59	.02	.70166	.78	1.94	179	
4	6	7	1	32.24	32.32	32.26	1.98	.68604	-.08	-.28	3	
4	7	-12	1	5.57	5.04	-5.00	.65	.64576	.52	.68	172	
4	7	-11	1	10.69	9.86	-9.65	.65	.60803	.83	1.92	192	
4	7	-10	1	47.84	47.77	47.69	2.87	.57337	.07	.17	3	
4	7	-9	1	2.83	3.33	3.33	.07	.54236	-.50	-.39	1	
4	7	-8	1	5.54	4.73	-4.73	.05	.51567	.81	1.25	179	
4	7	-7	1	7.30	6.35	-6.35	-.10	.49399	.95	2.01	181	
4	7	-6	1	9.19	7.71	-7.71	-.20	.47800	1.47	3.67	182	
4	7	-5	1	32.46	31.72	31.66	1.83	.46829	.74	2.38	3	
4	7	-4	1	41.10	40.74	40.69	1.91	.46526	.37	.86	2	
4	7	-3	1	21.64	22.03	-22.02	.32	.46902	-.38	-1.54	179	
4	7	-2	1	26.34	25.80	-25.73	1.82	.47943	.55	2.34	185	