

資料編

ケルビーニ: オペラ 《二日間》 (第二幕フィナーレより)

102

Solo. *pp*
 Solo. *pp*
 n.2. *pp*
pp
 Tous les Soldats défilent devant le I. Commandant et suivent Mikéil qui traîne sa charrette; le I. Commandant rentre au corps de garde.
 Alle Soldaten defiliren vor dem ersten Commandanten und folgen Micheli der seinen Wagen zieht; der erste Commandant geht alsdann in's Wächthaus zurück.
pp
ppz.
 ce!
 ce!
 ce!
 Voelli soli. *pp*
 Vello e Basso unis. *ppz.*

The first system of the musical score consists of eight staves. The top two staves are vocal parts, with the first staff starting at a *pp* (pianissimo) dynamic. The next two staves are piano accompaniment. The bottom two staves are for a string instrument, with the first staff starting at a *pp* dynamic. The music is in a key with three sharps (F#, C#, G#) and a 2/4 time signature. The notation includes various rhythmic values, slurs, and dynamic markings.

The second system of the musical score continues the composition with eight staves. It features a variety of dynamics, including *pp*, *ppp*, and *ff*. Performance instructions such as *arco* and *pizz.* (pizzicato) are used for the string parts. The notation includes complex rhythmic patterns, slurs, and dynamic markings. The system concludes with a *pp* dynamic marking.

Fin du I^{er} Acte.
Ende des zweiten Akts.

フンメル《協奏曲 ホ長調》(第三楽章より)

Maggiore

167 45

Fl. *pp*

Ob. *pp*

Cl. (A) *pp*

Fg. *p*

Cor. (E) *pp*

Tr. (E) *p*

VI I *pp*

VI II *pp* *pizz.*

Vla. *pp* *pizz.*

Vc. e B. *pp*

175

Fl.

Ob.

Cl. (A)

Fg.

Cor. (E)

Tr. (E)

VI I

VI II

Vla.

Vc. e B.

183

Fl.
Ob.
Cl. (A)
Fg.
Cor. (E)
Tr. (E)
VI I
VI II
Vla.
Vc. e B.

Detailed description: This system of musical notation covers measures 183 through 188. It includes staves for Flute, Oboe, Clarinet in A, Bassoon, Cor Anglais, Trumpet in E, Violin I, Violin II, Viola, and Violoncello/Double Bass. The woodwinds and strings play melodic lines with various articulations and dynamics. The strings are marked with accents and slurs.

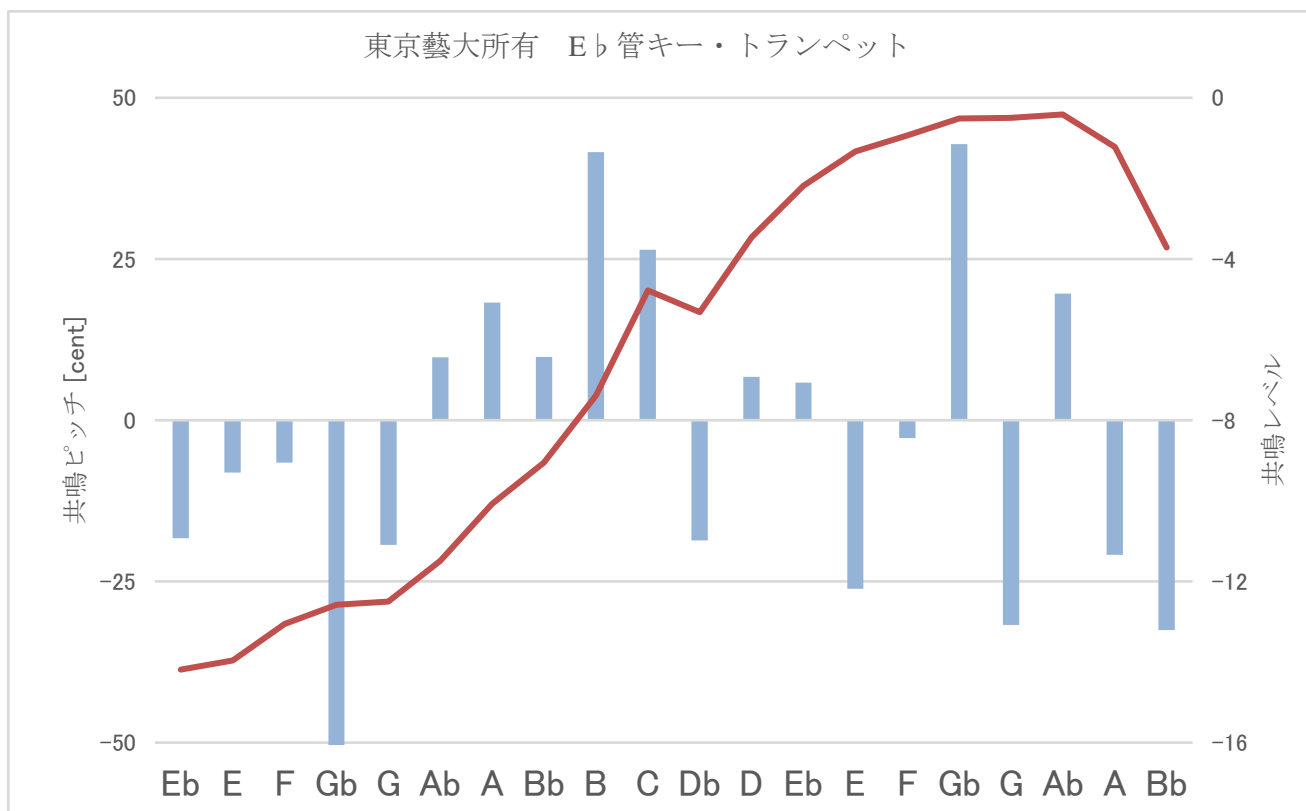
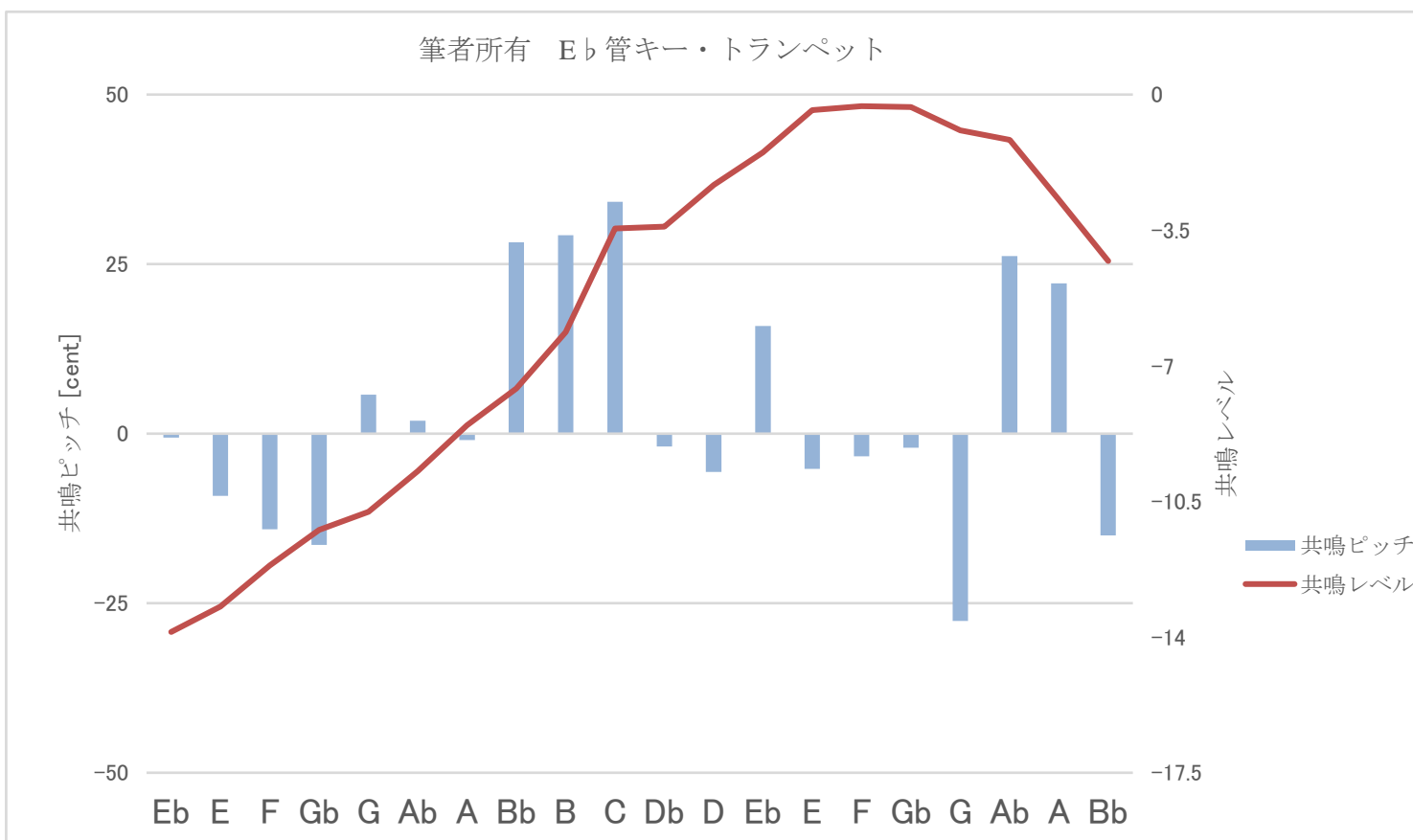
190

Fl.
Ob.
Cl. (A)
Fg.
Cor. (E)
Tr. (E)
VI I
VI II
Vla.
Vc. e B.

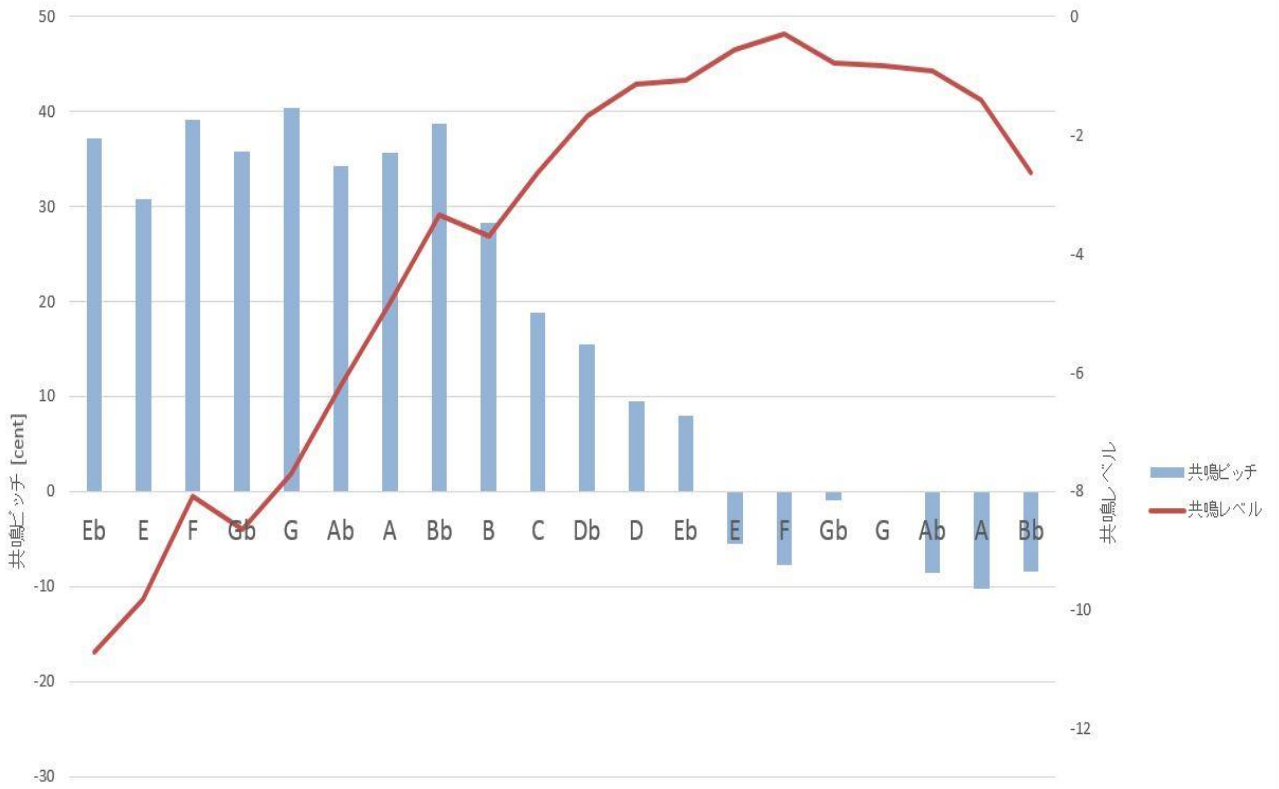
Detailed description: This system of musical notation covers measures 190 through 195. It includes staves for Flute, Oboe, Clarinet in A, Bassoon, Cor Anglais, Trumpet in E, Violin I, Violin II, Viola, and Violoncello/Double Bass. The woodwinds and strings play melodic lines with various articulations and dynamics. The strings are marked with accents and slurs. Dynamic markings include *f*, *p*, and *arco*.

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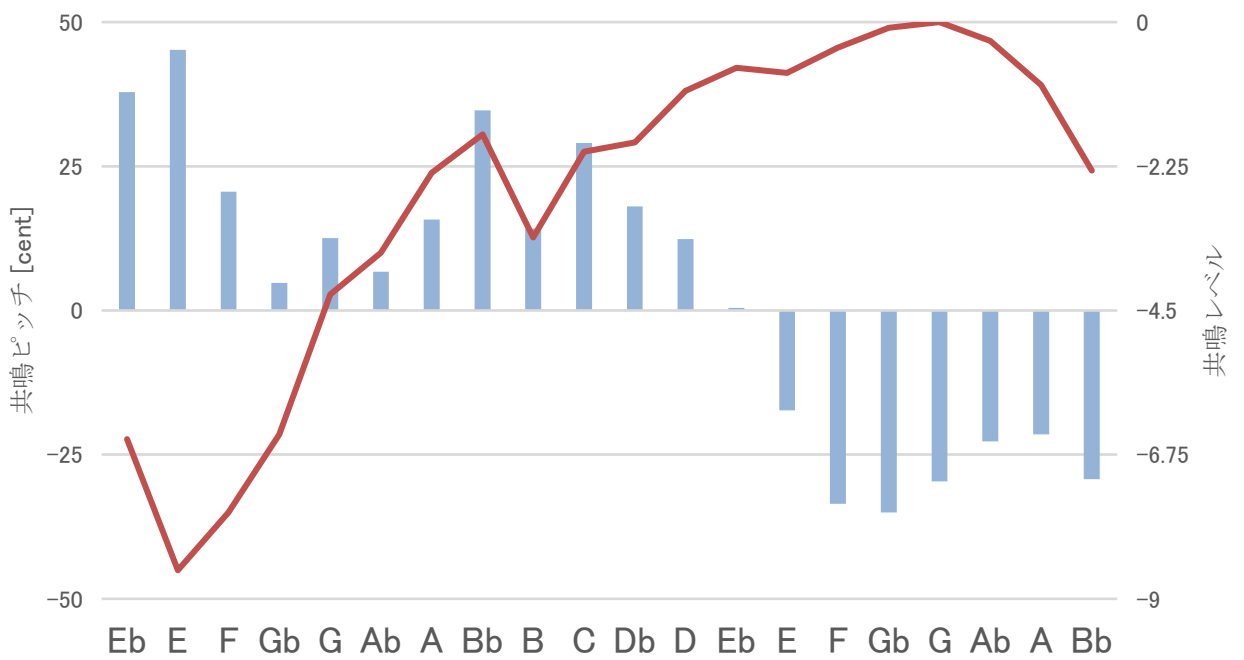
・各楽器の共鳴レベルと共鳴ピッチ グラフ



筆者所有 B \flat 管ロータリー・ヴァルヴ式トランペット



ヤマハ所有 E \flat 管ピストン・ヴァルヴ式トランペット



各楽器の共鳴ピッチの数値的比较

赤堀氏所有 キーボードEb管 ホーゲン付き ロングテラスピース																
運指	第1倍音	第2倍音	第3倍音	第4倍音	第5倍音	第6倍音	第7倍音	第8倍音	第9倍音	第10倍音	第11倍音	第12倍音	第13倍音	第14倍音	第15倍音	第16倍音
Key0	-737.609	-167.535	-30.868	-0.56	5.758	28.199	-1.91	15.86	-3.33	-27.603	-76.482	-15.003		-29.268		5.351
Key1	-815.499	-206.826	-67.69	-9.182	1.916	29.256	-5.626	18.361	-10.121		-35.288	46.044				-9.431
Key2	-875.056	-244.389	-86.194	-14.105	-0.961	24.396	16.694	12.666	-19.909	3.699	-16.281					
Key3	-899.697	-254.292	-95.718	-16.426	-32.808	34.483	-5.208	-2.065	-19.534							
Key4	-914.542	-232.26	-81.043	11.665	20.786	37.844	-1.36	17.6	22.145	33.414	10.881	84.841				
Key5	-902.695	-211.821	-65.243	22.014	34.185	53.57	-15.73	26.198	40.258					-26.39	7.153	37.12
東京芸大所有 キーボードEb管 ロングホーゲン付き 16C4テラスピース																
運指	第1倍音	第2倍音	第3倍音	第4倍音	第5倍音	第6倍音	第7倍音	第8倍音	第9倍音	第10倍音	第11倍音	第12倍音	第13倍音	第14倍音	第15倍音	第16倍音
Key0	-778.127	-133.453	-25.14	-18.303	-19.317	9.793	-18.649	5.817	-2.731	-31.773	-85.789	-32.547	9.412	-43.894	-45.043	-9.381
Key1	-854.863	-181.365	-43.965	-8.135	9.749	41.556	6.712	17.222		16.842	-15.547	42.626	89.726	10.383		
Key2	-913.631	-219.151	-60.924	-6.594	18.251	97.274	24.752	42.831	34.958	10.222						
Key3	-985.856	-273.667	-112.957	-52.097	-36.323	14.921	-26.143	-5.921	-24.092	-20.126	-47.313	15.657	26.741		-39.132	-16.661
Key4	-1000.936	-296.811	-125.744	-60.053	-19.283	6.987	-41.178	-10.889	-20.855	-23.556	-26.294	12.855	78.998	34.659		
Key5	-968.228	-249.681	-80.518	6.221	26.423	48.59	1.031	19.644	34.519							
赤堀氏所有 DOWIDS ローターボードEb管 16C4テラスピース																
運指	第1倍音	第2倍音	第3倍音	第4倍音	第5倍音	第6倍音	第7倍音	第8倍音	第9倍音	第10倍音	第11倍音	第12倍音	第13倍音	第14倍音	第15倍音	第16倍音
0	-489.841	51.782	39.162	38.704	9.563	-7.717	-43.956	-8.427	4.926	-5.511	-32.519					
2	-543.602	30.58	30.779	35.731	15.554	-5.545	-44.496	-10.266	-1.656	-11.992	-14.86					
1	-575.089	11.978	37.266	34.335	18.768	7.973	-41.364	-8.519	-0.699	-10.325	-36.196	-19.436				
12	-604.537	-1.187	47.345	40.391	28.255	28.841	-31.312	-0.02	7.906	-5.435	-37.762		67.93	21.798		
3	-635.236	-15.407	31.915	24.494	10.044	12.867	-45.18	-17.124	-9.241	-23.649	-41.272	10.475	56.861	-8.721		
23	-655.93	-24.394	48.59	35.857	22.779	32.002	-25.998	-0.897	4.218	-11.397	-39.373	8.357	50.171			
13	-663.122	-25.412	63.607	48.399	40.207	51.878	-1.407	15.772	19.863	6.118	-17.404	31.676	73.583	13.798		42.193
123	-668.392	-22.971	81.523	68.496	54.908	74.303	26.773	39.096	41.183	27.853	-6.531	47.805	73.783			
ヤマハ所有 Schilke ピストントランペットEb管(短管)E3L 16C4テラスピース																
運指	第1倍音	第2倍音	第3倍音	第4倍音	第5倍音	第6倍音	第7倍音	第8倍音	第9倍音	第10倍音	第11倍音	第12倍音	第13倍音	第14倍音	第15倍音	第16倍音
0	-217.36	37.871	34.721	0.422	-29.651	-29.266	-56.466	11.371	31.707							
2	-284.443	43.896	15.741	12.399	-35.033	-21.471	-65.016	3.279								
1	-322.518	40.635	6.732	18.066	-33.504	-22.705	-70.196	1.362	9.701							
12	-398.704	59.632	12.522	29.043	-17.301	-13.54	-50.11	-13.213								
3	-413.202	41.449	-5.173	10.777	-35.985	-27.166	-68.226	-36.638	6.626	25.11	-19.927					
23	-404.386	48.415	4.801	14.221	-16.454	-13.67	-47.461	-34.358	8.046							
13	-433.347	60.035	20.579	34.406	7.929	3.012	-33.252	-10.508	-15.712	11.811	-34.007	16.106				
123	-501.725	70.106	45.212	53.104	31.806	28.118	-13.123	18.641	6.197	27.817	28.483	45.224	119.723			

各楽器の共鳴レベルの数値的比較

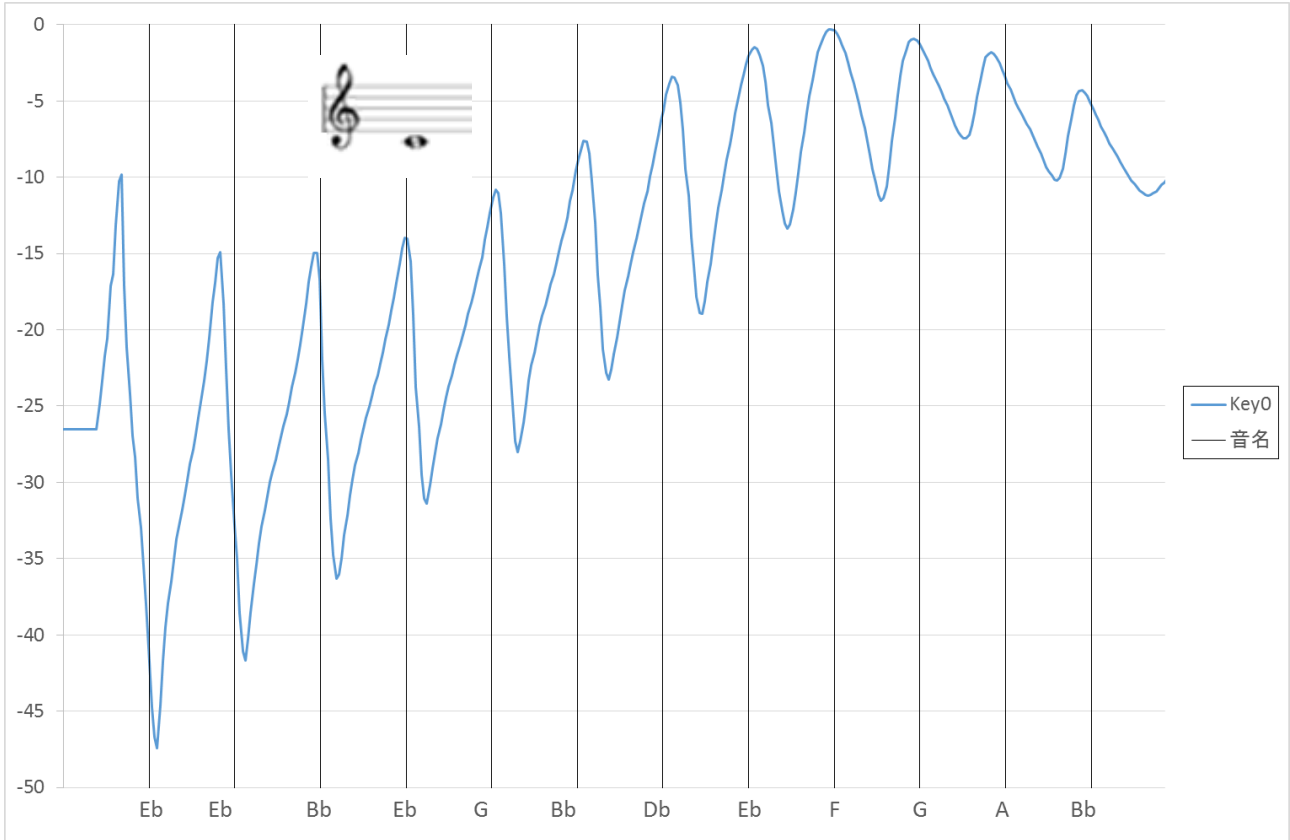
赤堀氏所有 キートラソバット Eb管 ホーケン付き ロングラウスピース																
運指	第1倍音	第2倍音	第3倍音	第4倍音	第5倍音	第6倍音	第7倍音	第8倍音	第9倍音	第10倍音	第11倍音	第12倍音	第13倍音	第14倍音	第15倍音	第16倍音
Key0	-9.869	-14.837	-14.839	-13.867	-10.765	-7.583	-3.408	-1.492	-0.299	-0.921	-1.83	-4.298				
Key1	-10.327	-15.196	-14.53	-13.212	-9.714	-6.131	-2.329	-0.492	-0.822		-2.561	-6.295				
Key2	-11.221	-14.236	-13.99	-12.154	-8.534	-4.514	-1.491	-0.208	-0.61	-2.094	-4.103	-8.926	-11.685			-12.988
Key3	-10.408	-14.093	-13.474	-11.233	-9.72	-2.537	-0.403	-0.319	-2.094	-4.103	-8.926	-11.685				
Key4	-9.65	-13.566	-12.819	-9.815	-5.271	-1.511	-0.198	-0.449	-2.714	-8.505	-10.634	-12.019				
Key5	-9.347	-13.027	-12.667	-8.126	-3.457	-0.428	-0.17	-1.171	-4.86							
東京芸大所有 キートラソバット Eb管 ロングホーケン付き 16C4ラウスピース																
運指	第1倍音	第2倍音	第3倍音	第4倍音	第5倍音	第6倍音	第7倍音	第8倍音	第9倍音	第10倍音	第11倍音	第12倍音	第13倍音	第14倍音	第15倍音	第16倍音
Key0	-9.719	-14.142	-15.222	-14.188	-12.496	-9.049	-5.319	-2.185	-0.936	-0.499	-1.145	-3.713	-7.688	-10.482	-10.11	-12.645
Key1	-10.45	-14.843	-14.982	-13.964	-11.489	-7.386	-3.458	-1.753		-0.734	-2.661	-7.258	-10.162	-11.488		
Key2	-10.821	-14.304	-14.415	-13.053	-10.075	-7.92	-1.793	-0.513	-0.287	-1.989						-12.991
Key3	-11.496	-14.25	-14.027	-12.583	-10.374	-4.165	-1.333	-0.285	-0.644	-2.4	-7.684	-10.02	-10.011			-12.079
Key4	-10.391	-13.877	-13.447	-12.008	-7.277	-2.804	-0.841	-0.177	-1.224	-5.151	-9.493	-11.316	-12.72	-13.136		
Key5	-9.762	-13.19	-12.541	-9.582	-4.782	-1.145	-0.173	-0.413	-3.384							
赤堀氏所有 DOWIDS ロータリー トラソバット Bb管 16C4ラウスピース																
運指	第1倍音	第2倍音	第3倍音	第4倍音	第5倍音	第6倍音	第7倍音	第8倍音	第9倍音	第10倍音	第11倍音	第12倍音	第13倍音	第14倍音	第15倍音	第16倍音
0	-7.677	-9.978	-8.076	-3.337	-1.133	-0.292	-0.625	-2.634	-6.437	-10.912	-12.996					
2	-8.486	-10.74	-9.813	-4.838	-1.673	-0.547	-0.582	-1.397	-4.625	-8.566	-11.506					
1	-8.646	-11.117	-10.712	-6.215	-2.632	-1.071	-0.555	-0.921	-3.688	-8.983	-10.618	-13.044				-12.46
12	-8.507	-12.122	-11.55	-7.702	-3.688	-1.594	-0.704	-0.828	-2.165	-5.656	-8.424					-13.073
3	-9.209	-11.909	-11.813	-7.697	-3.731	-1.703	-0.851	-0.772	-1.865	-4.709	-10.371	-12.591	-12.845	-11.164		
23	-9.424	-12.57	-12.52	-8.634	-5.198	-2.339	-1.292	-0.769	-1.199	-3.067	-8.026	-8.077	-10.933			
13	-9.457	-12.836	-12.815	-10.143	-6.846	-3.273	-1.645	-0.932	-1.122	-2.348	-5.818	-7.43	-11.07	-14.707		-11.565
123	-10.196	-13.915	-13.371	-11.151	-8.854	-4.178	-2.109	-1.137	-1.21	-1.749	-4.495	-7.121	-11.832			-12.945
ヤマハ所有 Schilke エストラソバット Eb管(短管) E3L 16C4ラウスピース																
運指	第1倍音	第2倍音	第3倍音	第4倍音	第5倍音	第6倍音	第7倍音	第8倍音	第9倍音	第10倍音	第11倍音	第12倍音	第13倍音	第14倍音	第15倍音	第16倍音
0	-6.507	-6.508	-1.754	-0.714	0	-2.319	-7.85	-10.384	-11.668							
2	-6.795	-7.219	-2.351	-1.072	-0.09	-0.981	-5.195	-10.538								
1	-9.734	-8.529	-3.603	-1.876	-0.397	-0.296	-4.256	-7.6	-11.344							
12	-8.244	-8.57	-4.249	-2.024	-0.792	-0.127	-2.176	-6.059								
3	-8.618	-9.297	-5.3	-2.108	-1.106	-0.145	-1.877	-6.934	-11.861	-12.155	-13.348					
23	-10.841	-10.097	-6.432	-3.36	-2.129	-0.237	-1.016	-4.981	-12.566							
13	-11.263	-10.232	-7.653	-3.32	-2.391	-0.468	-0.385	-3.431	-9	-10.205	-13.61	-13.07				
123	-9.346	-11.076	-8.554	-4.117	-2.697	-1.091	-0.362	-2.104	-5.486	-8.403	-13.181	-12.243	-13.962			

・ 共鳴曲線

グラフは、解放「key0」の測定結果である。

自然倍音列とピッチセンターの差を確認することができる。そうすることで、楽器本来の特性を見出すことができる。

筆者所有 キー・トランペット（右手用）資料



以下は、その数値である。（A=440Hz）

周波数[Hz]	key0	key1	key2	key3	key4	key5
0	-26.505	-26.747	-27.028	-27.465	-28.599	-29.228
2.5	-26.505	-26.747	-27.028	-27.465	-28.599	-29.228
5	-26.505	-26.747	-27.028	-27.465	-28.599	-29.228
7.5	-26.505	-26.747	-27.028	-27.465	-28.599	-29.228
10	-26.505	-26.747	-27.028	-27.465	-28.599	-29.228
12.5	-26.505	-26.747	-27.028	-27.465	-28.599	-29.228
15	-26.505	-26.747	-27.028	-27.465	-28.599	-29.228
17.5	-26.505	-26.747	-27.028	-27.465	-28.599	-29.228
20	-26.505	-26.747	-27.028	-27.465	-28.599	-29.228
22.5	-26.505	-26.747	-27.028	-27.465	-28.599	-29.228
25	-26.505	-26.747	-27.028	-27.465	-28.599	-29.228
27.5	-26.505	-26.747	-27.028	-27.465	-28.599	-29.228
30	-26.505	-26.747	-27.028	-27.465	-28.599	-29.228
32.5	-24.876	-25.244	-25.954	-26.511	-27.369	-28.395

35	-23.314	-23.753	-24.542	-25.469	-26.295	-27.385
37.5	-21.692	-22.156	-23.161	-24.042	-25.248	-26.281
40	-20.536	-21.039	-21.716	-22.631	-24.058	-25.279
42.5	-17.148	-18.678	-19.947	-21.384	-22.537	-24.124
45	-16.353	-17.265	-17.629	-19.691	-20.973	-22.823
47.5	-13.175	-14.432	-16.082	-16.469	-20.419	-21.449
50	-10.264	-11.404	-13.65	-15.845	-16.951	-20.811
52.5	-9.853	-9.886	-10.905	-12.95	-16.34	-18.503
55	-17.15	-15.312	-12.634	-9.66	-11.639	-15.37
57.5	-21.189	-19.782	-17.175	-12.965	-9.894	-13.48
60	-24.24	-22.869	-20.971	-17.194	-11.275	-9.764
62.5	-26.994	-25.609	-23.907	-20.804	-15.702	-9.423
65	-28.326	-27.648	-25.783	-23.553	-19.445	-13.081
67.5	-31.057	-30.038	-28.221	-25.491	-22.229	-17.106
70	-33.017	-31.867	-30.211	-27.907	-24.578	-20.554
72.5	-35.49	-34.111	-32.262	-29.928	-26.582	-22.974
75	-38.053	-36.347	-34.367	-31.658	-28.441	-24.836
77.5	-40.835	-39.106	-36.504	-33.769	-30.26	-26.871
80	-44.783	-42.595	-39.485	-35.743	-32.204	-28.721
82.5	-46.687	-46.066	-42.614	-38.039	-34.384	-30.582
85	-47.419	-47.131	-45.497	-40.668	-36.46	-32.326
87.5	-44.619	-46.314	-47.594	-43.813	-38.48	-34.235
90	-41.747	-43.254	-46.488	-46.791	-41.124	-36.199
92.5	-39.481	-41.211	-44.309	-47.37	-44.213	-38.263
95	-37.919	-39.299	-41.652	-45.314	-46.548	-40.593
97.5	-36.46	-37.397	-39.451	-43.004	-47.071	-43.276
100	-35.073	-36.053	-37.925	-40.665	-46.095	-46.355
102.5	-33.739	-34.992	-36.803	-38.894	-43.337	-48.124
105	-32.866	-33.783	-35.429	-37.809	-41.625	-46.945
107.5	-31.801	-32.719	-34.352	-36.482	-39.5	-44.16
110	-30.827	-31.742	-33.234	-35.25	-38.287	-42.335
112.5	-29.839	-30.869	-32.286	-34.234	-36.873	-40.331
115	-28.797	-29.901	-31.375	-33.236	-35.753	-38.903
117.5	-27.863	-29.041	-30.517	-32.325	-34.694	-37.713
120	-26.837	-28.094	-29.666	-31.439	-33.81	-36.537
122.5	-25.726	-27.154	-28.847	-30.635	-32.951	-35.499
125	-24.384	-26.116	-28.022	-29.858	-32.164	-34.529
127.5	-23.321	-25.059	-27.087	-29.043	-31.387	-33.702
130	-22.076	-23.915	-26.108	-28.319	-30.639	-32.948
132.5	-20.501	-22.444	-25.04	-27.484	-29.866	-32.155

135	-18.17	-21.445	-23.98	-26.648	-29.18	-31.377
137.5	-16.905	-19.398	-22.972	-25.755	-28.504	-30.802
140	-15.331	-16.929	-21.644	-24.621	-27.687	-30.03
142.5	-14.905	-16.163	-20.211	-23.695	-26.898	-29.382
145	-18.273	-15.237	-18.593	-22.674	-26.23	-28.734
147.5	-22.562	-15.291	-16.287	-21.506	-25.353	-28.084
150	-26.539	-17.517	-15.263	-20.079	-24.423	-27.451
152.5	-29.49	-23.832	-14.668	-18.501	-23.544	-26.701
155	-32.832	-26.739	-15.536	-16.839	-22.549	-26.063
157.5	-35.06	-29.122	-20.953	-15.453	-21.514	-25.255
160	-38.576	-32.325	-23.38	-14.4	-20.219	-24.407
162.5	-41.072	-35.931	-27.946	-14.777	-18.783	-23.542
165	-41.698	-38.451	-30.375	-19.838	-16.258	-22.667
167.5	-40.234	-41.028	-32.864	-22.634	-15.3	-21.561
170	-38.525	-41.556	-35.978	-26.197	-13.922	-20.42
172.5	-36.65	-40.539	-38.595	-28.884	-13.836	-19.19
175	-35.367	-38.729	-40.96	-31.559	-15.721	-17.128
177.5	-34.006	-37.061	-41.242	-34.238	-19.684	-16.275
180	-32.885	-35.425	-39.953	-36.917	-23.146	-14.437
182.5	-31.811	-34.17	-38.418	-39.502	-26.227	-13.427
185	-30.892	-33.058	-36.744	-40.864	-28.838	-13.276
187.5	-29.978	-32.013	-35.332	-41.032	-31.341	-14.848
190	-29.284	-31.095	-34.018	-39.196	-33.773	-18.533
192.5	-28.531	-30.274	-32.996	-37.619	-36.201	-22.007
195	-27.754	-29.509	-32.02	-36.178	-38.788	-25.039
197.5	-27.026	-28.784	-31.151	-34.854	-40.507	-27.571
200	-26.306	-28.1	-30.371	-33.677	-40.394	-29.937
202.5	-25.514	-27.371	-29.616	-32.682	-39.16	-32.243
205	-24.701	-26.667	-28.901	-31.764	-37.822	-34.536
207.5	-23.777	-25.912	-28.21	-30.974	-36.227	-37.123
210	-22.839	-25.244	-27.528	-30.142	-34.935	-39.267
212.5	-21.92	-24.471	-26.928	-29.481	-33.88	-39.812
215	-20.966	-23.688	-26.19	-28.759	-32.766	-39.641
217.5	-19.835	-22.746	-25.53	-28.131	-31.893	-38.561
220	-18.276	-21.898	-24.883	-27.433	-31.011	-36.882
222.5	-16.834	-20.766	-24.136	-26.858	-30.273	-35.591
225	-15.831	-19.956	-23.362	-26.194	-29.55	-34.388
227.5	-14.982	-18.776	-22.555	-25.553	-28.912	-33.315
230	-14.985	-16.994	-21.73	-24.941	-28.262	-32.351
232.5	-16.709	-16.18	-20.838	-24.253	-27.66	-31.444

235	-21.984	-15.079	-19.646	-23.563	-27.023	-30.668
237.5	-25.5	-14.494	-18.834	-22.896	-26.429	-29.961
240	-28.504	-15.293	-17.071	-22.042	-25.887	-29.293
242.5	-32.369	-17.617	-16.353	-21.188	-25.286	-28.648
245	-34.79	-21.775	-15.164	-20.274	-24.707	-28.05
247.5	-36.336	-25.904	-14.242	-19.294	-24.158	-27.499
250	-36.044	-28.305	-14.176	-18.549	-23.532	-26.917
252.5	-34.985	-31.914	-15.377	-16.979	-22.822	-26.405
255	-33.432	-34.15	-18.565	-16.216	-22.214	-25.812
257.5	-32.159	-35.82	-22.674	-15.016	-21.474	-25.296
260	-30.851	-36.029	-25.682	-13.832	-20.598	-24.752
262.5	-29.806	-34.991	-28.667	-13.531	-19.893	-24.224
265	-28.869	-33.416	-31.613	-14.195	-19.07	-23.628
267.5	-28.081	-32.174	-34.343	-16.443	-17.87	-23.107
270	-27.206	-31.02	-35.364	-20.335	-16.797	-22.516
272.5	-26.476	-30.003	-35.298	-23.647	-15.959	-21.884
275	-25.771	-29.071	-34.402	-26.781	-14.536	-21.191
277.5	-25.04	-28.248	-33.403	-29.744	-13.335	-20.495
280	-24.381	-27.458	-31.997	-32.217	-12.868	-19.793
282.5	-23.659	-26.749	-30.873	-34.247	-13.227	-18.879
285	-23.008	-26.074	-29.872	-35.082	-15.012	-18.088
287.5	-22.213	-25.399	-28.971	-34.752	-18.199	-16.898
290	-21.508	-24.777	-28.15	-33.884	-21.875	-16.177
292.5	-20.596	-24.113	-27.415	-32.447	-24.177	-15.079
295	-19.696	-23.499	-26.723	-31.43	-27.369	-13.792
297.5	-18.725	-22.873	-25.992	-30.278	-29.952	-13.078
300	-17.875	-22.379	-25.079	-29.262	-32.263	-12.633
302.5	-16.883	-21.458	-24.721	-28.518	-33.718	-13.302
305	-15.71	-20.784	-24.181	-27.725	-34.219	-15.344
307.5	-14.65	-20.114	-23.563	-26.89	-33.481	-18.77
310	-13.953	-19.208	-23.016	-26.224	-32.483	-22.35
312.5	-14.04	-18.483	-22.414	-25.603	-31.525	-24.032
315	-15.545	-17.306	-21.865	-25.021	-30.359	-24.604
317.5	-19.017	-16.622	-21.223	-24.449	-29.468	-24.534
320	-23.781	-15.587	-20.594	-23.901	-28.577	-24.795
322.5	-26.38	-14.527	-19.912	-23.359	-27.702	-26.79
325	-29.535	-13.665	-19.221	-22.854	-27.021	-30.394
327.5	-31.081	-13.214	-18.452	-22.271	-26.292	-32.249
330	-31.399	-13.601	-17.593	-21.727	-25.618	-33.012
332.5	-30.203	-15.377	-16.902	-21.182	-25.057	-32.147

335	-29.073	-19.474	-15.817	-20.636	-24.464	-31.206
337.5	-28.07	-22.236	-15.096	-19.996	-23.928	-30.222
340	-27.1	-25.448	-14.072	-19.457	-23.37	-29.271
342.5	-26.173	-28.512	-13.165	-18.785	-22.865	-28.369
345	-25.249	-30.255	-12.416	-18.09	-22.349	-27.444
347.5	-24.429	-30.924	-12.389	-17.388	-21.797	-26.688
350	-23.707	-30.392	-13.308	-16.675	-21.246	-25.923
352.5	-22.969	-29.103	-16.181	-15.857	-20.647	-25.202
355	-22.296	-27.873	-18.927	-14.749	-20.094	-24.581
357.5	-21.635	-26.741	-22.128	-14.019	-19.543	-23.933
360	-20.921	-25.775	-25.075	-12.98	-18.9	-23.374
362.5	-20.34	-24.829	-27.996	-12.069	-18.308	-22.799
365	-19.72	-24.085	-29.552	-11.3	-17.713	-22.295
367.5	-18.98	-23.351	-29.831	-11.241	-17.163	-21.772
370	-18.207	-22.628	-29.484	-12.231	-16.608	-21.279
372.5	-17.547	-22.002	-28.331	-13.947	-16.201	-20.757
375	-16.818	-21.34	-27.342	-17.49	-15.967	-20.261
377.5	-16.054	-20.677	-26.225	-19.839	-15.795	-19.774
380	-15.232	-20.07	-25.234	-23.23	-15.24	-19.254
382.5	-14.109	-19.518	-24.372	-25.418	-13.992	-18.765
385	-13.259	-18.842	-23.586	-27.773	-13.078	-18.184
387.5	-12.323	-18.17	-22.776	-29.072	-12.056	-17.652
390	-11.297	-17.601	-22.128	-29.167	-10.806	-17.081
392.5	-10.828	-16.945	-21.494	-28.532	-10.084	-16.53
395	-11.031	-16.235	-20.847	-27.388	-9.837	-15.889
397.5	-12.39	-15.465	-20.306	-26.363	-10.267	-15.147
400	-15.723	-14.704	-19.616	-25.417	-11.81	-14.515
402.5	-19.134	-13.89	-19.035	-24.427	-14.444	-13.669
405	-21.797	-12.811	-18.443	-23.504	-17.895	-12.98
407.5	-24.946	-12.105	-17.867	-22.688	-20.254	-12.171
410	-27.292	-11.008	-17.246	-21.958	-23.245	-11.333
412.5	-28.009	-10.181	-16.656	-21.23	-25.196	-9.9
415	-27.325	-9.749	-15.98	-20.611	-27.093	-9.174
417.5	-26.089	-9.881	-15.21	-19.987	-28.862	-8.558
420	-24.802	-10.901	-14.55	-19.312	-28.885	-8.109
422.5	-23.338	-13.141	-13.796	-18.762	-27.849	-8.329
425	-22.33	-16.847	-13.038	-18.176	-26.703	-9.268
427.5	-21.495	-19.334	-12.186	-17.623	-25.119	-11.226
430	-20.621	-22.808	-11.107	-16.986	-24.319	-14.077
432.5	-19.741	-24.572	-10.039	-16.353	-23.398	-16.372

435	-19.068	-25.726	-9.332	-15.714	-22.55	-18.688
437.5	-18.417	-26.411	-8.794	-15.033	-21.844	-20.594
440	-17.737	-25.767	-8.489	-14.374	-21.082	-23.154
442.5	-17.03	-24.947	-8.98	-13.565	-20.422	-25.119
445	-16.358	-23.835	-10.184	-12.969	-19.78	-26.819
447.5	-15.647	-22.81	-12.428	-12.215	-19.148	-27.804
450	-14.855	-21.818	-15.703	-11.098	-18.524	-27.578
452.5	-14.162	-20.911	-17.883	-10.545	-17.938	-27.021
455	-13.389	-19.977	-20.927	-10.023	-17.339	-25.741
457.5	-12.646	-19.106	-22.894	-9.711	-16.674	-24.423
460	-11.567	-18.412	-25.078	-10.07	-16.215	-23.544
462.5	-10.882	-17.729	-25.794	-11.305	-15.59	-22.569
465	-9.552	-17.013	-25.676	-13.279	-15.025	-21.669
467.5	-8.863	-16.297	-24.563	-14.217	-14.391	-20.831
470	-8.219	-15.62	-23.474	-13.265	-13.813	-20.099
472.5	-7.637	-14.879	-22.372	-11.667	-13.173	-19.397
475	-7.657	-14.266	-21.408	-10.895	-12.5	-18.708
477.5	-8.447	-13.564	-20.367	-10.56	-11.72	-18.096
480	-10.269	-12.767	-19.462	-11.266	-11.079	-17.5
482.5	-12.993	-12.087	-18.671	-13.333	-10.165	-16.856
485	-16.402	-11.328	-17.876	-16.24	-9.351	-16.28
487.5	-18.523	-10.381	-17.119	-18.936	-8.729	-15.697
490	-21.3	-9.467	-16.394	-21.38	-7.642	-15.118
492.5	-22.806	-8.825	-15.716	-23.277	-7.012	-14.522
495	-23.254	-7.824	-14.975	-23.946	-5.952	-13.926
497.5	-22.613	-6.885	-14.315	-23.677	-5.505	-13.376
500	-21.607	-6.396	-13.642	-22.786	-5.239	-12.779
502.5	-20.482	-6.111	-12.893	-21.703	-5.535	-12.152
505	-19.475	-6.438	-12.167	-20.612	-6.519	-11.454
507.5	-18.406	-7.54	-11.41	-19.571	-8.521	-10.843
510	-17.427	-9.448	-10.716	-18.603	-10.573	-10.106
512.5	-16.508	-12.249	-9.8	-17.679	-12.315	-9.309
515	-15.669	-14.598	-8.946	-16.843	-14.451	-8.629
517.5	-14.9	-16.568	-8.216	-16.124	-16.79	-7.834
520	-14.01	-18.876	-7.174	-15.309	-18.586	-6.818
522.5	-13.264	-20.348	-6.496	-14.601	-20.547	-6.133
525	-12.486	-21.143	-5.487	-13.89	-21.961	-5.083
527.5	-11.691	-20.996	-4.834	-13.173	-22.667	-4.311
530	-10.928	-20.446	-4.521	-12.52	-22.703	-3.831
532.5	-9.959	-19.537	-4.649	-11.816	-21.975	-3.457

535	-9.199	-18.548	-5.277	-11.058	-20.851	-3.543
537.5	-8.329	-17.457	-6.666	-10.383	-19.752	-4.025
540	-7.251	-16.459	-9.03	-9.565	-18.761	-5.336
542.5	-6.314	-15.487	-11.158	-8.893	-17.73	-6.641
545	-5.61	-14.571	-12.872	-8.111	-16.742	-8.797
547.5	-4.553	-13.655	-14.965	-7.175	-15.892	-10.252
550	-3.858	-12.849	-17.013	-6.49	-15.052	-12.385
552.5	-3.437	-11.961	-18.276	-5.483	-14.255	-13.878
555	-3.481	-11.151	-18.864	-4.637	-13.463	-15.496
557.5	-3.951	-10.433	-18.666	-3.841	-12.689	-16.884
560	-5.105	-9.556	-17.829	-3.178	-11.989	-17.617
562.5	-6.925	-8.7	-16.586	-2.718	-11.23	-17.859
565	-9.472	-7.965	-15.469	-2.546	-10.546	-17.198
567.5	-11.239	-7.008	-14.23	-2.644	-9.785	-16.65
570	-13.917	-6.301	-12.898	-3.068	-9.112	-15.834
572.5	-15.8	-5.468	-11.959	-3.984	-8.375	-15.402
575	-17.874	-4.435	-10.932	-5.351	-7.536	-15.622
577.5	-18.874	-3.825	-9.714	-6.938	-6.847	-16.576
580	-18.931	-3.002	-9.137	-8.645	-5.948	-17.731
582.5	-18.143	-2.541	-8.352	-10.671	-5.277	-17.662
585	-16.855	-2.361	-7.986	-12.162	-4.334	-16.986
587.5	-15.687	-2.379	-8.134	-13.937	-3.564	-15.984
590	-14.371	-2.886	-9.039	-15.705	-3.053	-14.879
592.5	-13.132	-3.62	-10.617	-17.386	-2.33	-13.774
595	-11.979	-4.887	-11.942	-18.543	-1.903	-12.811
597.5	-10.899	-6.473	-12.217	-19.112	-1.674	-11.89
600	-9.821	-8.191	-11.376	-18.807	-1.501	-10.998
602.5	-8.848	-9.947	-10.145	-18.066	-1.586	-10.092
605	-7.828	-11.811	-8.878	-16.854	-1.99	-9.265
607.5	-6.89	-13.484	-7.744	-15.671	-2.677	-8.485
610	-5.803	-15.264	-6.602	-14.461	-3.657	-7.609
612.5	-5.013	-16.479	-5.346	-13.319	-4.826	-6.888
615	-3.95	-17.242	-4.299	-12.221	-6.342	-6.091
617.5	-3.287	-17.14	-3.542	-11.177	-7.479	-5.192
620	-2.573	-16.356	-2.568	-10.169	-8.877	-4.491
622.5	-2.035	-15.218	-2.202	-9.242	-10.302	-3.606
625	-1.672	-13.865	-1.683	-8.328	-11.741	-3.013
627.5	-1.478	-12.586	-1.531	-7.415	-13.194	-2.396
630	-1.601	-11.365	-1.589	-6.522	-14.586	-1.855
632.5	-1.955	-10.259	-1.926	-5.634	-15.802	-1.303

635	-2.704	-9.155	-2.601	-4.67	-16.656	-0.915
637.5	-3.764	-8.085	-3.582	-3.954	-16.84	-0.62
640	-5.303	-7.045	-4.994	-3.192	-16.405	-0.455
642.5	-6.458	-6.04	-6.304	-2.378	-15.379	-0.442
645	-7.972	-5.081	-7.453	-1.939	-14.139	-0.529
647.5	-9.486	-4.031	-8.873	-1.344	-12.796	-0.796
650	-10.924	-3.322	-10.294	-0.931	-11.487	-1.237
652.5	-12.184	-2.576	-11.68	-0.623	-10.236	-1.833
655	-13.048	-1.949	-13.059	-0.44	-9.128	-2.534
657.5	-13.383	-1.447	-13.915	-0.413	-8.012	-3.332
660	-13.065	-0.933	-14.285	-0.47	-6.969	-4.309
662.5	-12.108	-0.649	-14.044	-0.684	-5.969	-5.188
665	-11.012	-0.506	-13.185	-1.077	-5.065	-5.985
667.5	-9.707	-0.508	-12.076	-1.629	-4.301	-6.952
670	-8.359	-0.651	-10.784	-2.287	-3.749	-7.947
672.5	-7.041	-0.98	-9.312	-3.175	-3.453	-8.981
675	-5.803	-1.474	-8.113	-3.965	-3.44	-10.043
677.5	-4.663	-2.113	-6.852	-4.674	-3.352	-11.129
680	-3.623	-2.834	-5.662	-5.575	-3.093	-12.242
682.5	-2.723	-3.666	-4.547	-6.644	-2.546	-13.265
685	-1.821	-4.717	-3.547	-7.508	-1.761	-14.151
687.5	-1.376	-5.638	-2.668	-8.541	-1.179	-14.685
690	-0.811	-6.44	-1.946	-9.602	-0.72	-14.746
692.5	-0.503	-7.43	-1.247	-10.673	-0.417	-14.181
695	-0.337	-8.603	-0.775	-11.712	-0.269	-13.204
697.5	-0.307	-9.443	-0.39	-12.622	-0.195	-11.984
700	-0.369	-10.32	-0.29	-13.184	-0.227	-10.644
702.5	-0.573	-10.919	-0.201	-13.247	-0.359	-9.183
705	-0.91	-11.065	-0.204	-12.616	-0.599	-7.905
707.5	-1.359	-10.666	-0.301	-11.601	-0.926	-6.597
710	-1.884	-9.756	-0.504	-10.243	-1.33	-5.365
712.5	-2.463	-8.534	-0.804	-8.786	-1.778	-4.243
715	-3.123	-7.126	-1.235	-7.266	-2.292	-3.167
717.5	-3.839	-5.82	-1.661	-5.894	-2.765	-2.357
720	-4.534	-4.514	-2.131	-4.587	-3.281	-1.687
722.5	-5.175	-3.394	-2.653	-3.451	-3.875	-1.033
725	-5.951	-2.306	-3.243	-2.487	-4.408	-0.556
727.5	-6.784	-1.785	-3.713	-1.743	-4.901	-0.388
730	-7.672	-1.302	-4.265	-1.062	-5.498	-0.234
732.5	-8.563	-0.927	-4.871	-0.586	-6.129	-0.178

735	-9.485	-0.846	-5.493	-0.445	-6.775	-0.193
737.5	-10.363	-0.87	-6.216	-0.332	-7.458	-0.281
740	-11.131	-1.025	-6.853	-0.327	-8.181	-0.437
742.5	-11.546	-1.305	-7.611	-0.422	-8.956	-0.666
745	-11.402	-1.699	-8.424	-0.609	-9.788	-0.959
747.5	-10.581	-2.176	-9.272	-0.89	-10.666	-1.29
750	-9.206	-2.715	-10.136	-1.238	-11.534	-1.651
752.5	-7.633	-3.281	-10.974	-1.632	-12.324	-2.032
755	-6.097	-3.952	-11.694	-2.035	-12.939	-2.42
757.5	-4.641	-4.471	-12.178	-2.465	-13.15	-2.812
760	-3.364	-5.124	-12.155	-2.9	-12.823	-3.206
762.5	-2.378	-5.809	-11.525	-3.345	-11.854	-3.603
765	-1.696	-6.625	-10.36	-3.802	-10.495	-4.058
767.5	-1.16	-7.269	-8.702	-4.327	-8.91	-4.469
770	-0.969	-8.044	-7.299	-4.746	-7.31	-4.859
772.5	-0.928	-8.805	-5.735	-5.262	-5.736	-5.315
775	-1.024	-9.351	-4.292	-5.807	-4.31	-5.792
777.5	-1.258	-9.437	-3.039	-6.373	-3.084	-6.304
780	-1.575	-8.899	-2.103	-6.994	-2.139	-6.837
782.5	-1.952	-7.803	-1.437	-7.646	-1.464	-7.414
785	-2.365	-6.449	-0.87	-8.339	-0.854	-8.024
787.5	-2.878	-5.184	-0.689	-9.075	-0.633	-8.674
790	-3.263	-4.182	-0.601	-9.787	-0.479	-9.373
792.5	-3.582	-3.496	-0.644	-10.436	-0.456	-10.049
795	-4.005	-3.023	-0.802	-10.878	-0.528	-10.637
797.5	-4.401	-2.881	-1.05	-10.908	-0.7	-10.986
800	-4.851	-2.909	-1.344	-10.409	-0.924	-10.965
802.5	-5.283	-3.087	-1.677	-9.42	-1.2	-10.467
805	-5.749	-3.315	-2.019	-8.057	-1.501	-9.513
807.5	-6.206	-3.624	-2.372	-6.544	-1.821	-8.286
810	-6.626	-3.917	-2.731	-5.082	-2.137	-7.095
812.5	-7.056	-4.209	-3.076	-3.843	-2.462	-6.133
815	-7.283	-4.488	-3.427	-2.923	-2.776	-5.505
817.5	-7.453	-4.794	-3.822	-2.37	-3.087	-5.163
820	-7.457	-4.973	-4.183	-2.114	-3.394	-5.023
822.5	-7.22	-5.123	-4.501	-2.127	-3.709	-4.932
825	-6.636	-5.156	-4.91	-2.267	-4.042	-4.687
827.5	-5.804	-4.985	-5.288	-2.512	-4.355	-4.204
830	-4.743	-4.549	-5.704	-2.734	-4.632	-3.513
832.5	-3.702	-3.892	-6.12	-2.794	-4.92	-2.765

835	-2.851	-3.086	-6.54	-2.693	-5.227	-2.128
837.5	-2.15	-2.648	-6.98	-2.504	-5.534	-1.659
840	-1.915	-2.248	-7.427	-2.285	-5.851	-1.286
842.5	-1.824	-2.043	-7.936	-2.207	-6.184	-1.19
845	-1.913	-1.986	-8.31	-2.189	-6.526	-1.221
847.5	-2.168	-2.117	-8.688	-2.274	-6.888	-1.353
850	-2.539	-2.342	-8.981	-2.475	-7.29	-1.609
852.5	-2.95	-2.681	-9.156	-2.724	-7.73	-1.902
855	-3.378	-3.102	-9.157	-3.037	-8.183	-2.226
857.5	-3.882	-3.579	-8.653	-3.366	-8.686	-2.549
860	-4.256	-4.17	-7.772	-3.785	-9.177	-2.929
862.5	-4.692	-4.609	-6.697	-4.099	-9.623	-3.193
865	-5.118	-5.112	-5.633	-4.476	-9.977	-3.503
867.5	-5.49	-5.575	-4.473	-4.845	-10.113	-3.805
870	-5.848	-6.049	-3.544	-5.237	-9.906	-4.127
872.5	-6.182	-6.426	-2.918	-5.548	-9.304	-4.385
875	-6.522	-6.799	-2.606	-5.895	-8.285	-4.674
877.5	-6.861	-7.144	-2.574	-6.24	-7.021	-4.966
880	-7.208	-7.469	-2.711	-6.583	-5.693	-5.251
882.5	-7.597	-7.862	-2.962	-6.942	-4.505	-5.549
885	-8.004	-8.303	-3.283	-7.333	-3.591	-5.855
887.5	-8.429	-8.761	-3.669	-7.741	-2.999	-6.177
890	-8.867	-9.209	-4.051	-8.17	-2.743	-6.499
892.5	-9.309	-9.628	-4.386	-8.584	-2.753	-6.814
895	-9.609	-10.005	-4.746	-9.014	-2.901	-7.145
897.5	-9.903	-10.396	-5.052	-9.499	-3.198	-7.489
900	-10.149	-10.698	-5.43	-10.006	-3.563	-7.841
902.5	-10.235	-10.864	-5.775	-10.54	-3.9	-8.199
905	-10.034	-10.693	-6.126	-11.073	-4.275	-8.585
907.5	-9.435	-10.074	-6.473	-11.554	-4.685	-9.007
910	-8.437	-9.028	-6.805	-11.773	-5.059	-9.433
912.5	-7.269	-7.848	-7.143	-11.731	-5.406	-9.891
915	-6.191	-6.628	-7.505	-11.318	-5.776	-10.372
917.5	-5.27	-5.545	-7.854	-10.475	-6.133	-10.863
920	-4.654	-4.696	-8.216	-9.261	-6.477	-11.37
922.5	-4.349	-4.187	-8.603	-7.901	-6.826	-11.897
925	-4.309	-4.018	-8.984	-6.585	-7.166	-12.386
927.5	-4.445	-4.117	-9.407	-5.457	-7.493	-12.807
930	-4.711	-4.382	-9.835	-4.637	-7.822	-13.042
932.5	-5.059	-4.831	-10.275	-4.171	-8.132	-12.923

935	-5.502	-5.22	-10.709	-4.095	-8.454	-12.343
937.5	-5.89	-5.62	-11.117	-4.356	-8.745	-11.398
940	-6.259	-6.029	-11.522	-4.637	-9.053	-9.851
942.5	-6.668	-6.458	-11.825	-5.057	-9.454	-8.774
945	-7.045	-6.847	-12.027	-5.48	-9.805	-7.423
947.5	-7.416	-7.227	-12	-5.904	-10.163	-6.268
950	-7.766	-7.587	-11.634	-6.312	-10.473	-5.305
952.5	-8.101	-7.967	-10.905	-6.697	-10.686	-4.962
955	-8.394	-8.247	-9.868	-7.063	-10.842	-4.856
957.5	-8.684	-8.569	-8.747	-7.409	-10.884	-5.012
960	-9.016	-8.909	-7.702	-7.751	-10.834	-5.335
962.5	-9.365	-9.248	-6.922	-8.085	-10.797	-5.735
965	-9.672	-9.58	-6.453	-8.445	-10.825	-6.13
967.5	-9.956	-9.898	-6.3	-8.729	-10.882	-6.522
970	-10.208	-10.18	-6.375	-9.016	-10.946	-6.866
972.5	-10.432	-10.471	-6.606	-9.3	-11.004	-7.206
975	-10.646	-10.766	-6.899	-9.582	-11.134	-7.537
977.5	-10.854	-11.09	-7.244	-9.873	-11.294	-7.879
980	-11.015	-11.369	-7.593	-10.152	-11.431	-8.2
982.5	-11.134	-11.645	-7.942	-10.44	-11.475	-8.52
985	-11.191	-11.854	-8.266	-10.735	-11.456	-8.819
987.5	-11.167	-12.024	-8.585	-11.018	-11.329	-9.119
990	-11.034	-12.144	-8.88	-11.304	-11.102	-9.413
992.5	-10.934	-12.167	-9.163	-11.584	-10.719	-9.674
995	-10.734	-12.163	-9.448	-11.876	-10.231	-9.943
997.5	-10.5	-12.069	-9.729	-12.22	-9.682	-10.213
1000	-10.332	-11.949	-10.123	-12.669	-9.282	-10.516
1002.5	-10.034	-11.327	-10.32	-13.006	-8.847	-10.712
1005	-10.047	-10.775	-10.695	-13.302	-8.514	-11.005
1007.5	-9.995	-9.938	-10.913	-13.756	-8.513	-11.267
1010	-10.004	-9.487	-11.228	-14.018	-8.644	-11.542
1012.5	-10.112	-9.154	-11.509	-14.322	-8.757	-11.787
1015	-10.126	-9.109	-11.835	-14.435	-9.007	-12.085
1017.5	-10.319	-9.171	-12.152	-14.296	-9.219	-12.321
1020	-10.493	-9.364	-12.287	-13.855	-9.558	-12.522
1022.5	-10.675	-9.687	-12.362	-13.107	-9.729	-12.763
1025	-10.934	-10.008	-12.428	-11.861	-10.107	-12.945
1027.5	-11.2	-10.257	-12.528	-11.004	-10.297	-13.146
1030	-11.421	-10.592	-12.546	-9.904	-10.6	-13.323
1032.5	-11.666	-10.789	-12.605	-9.296	-10.804	-13.455

1035	-11.918	-11.082	-12.469	-9.018	-11.076	-13.512
1037.5	-12.141	-11.382	-12.575	-8.926	-11.268	-13.577
1040	-12.459	-11.653	-12.527	-9.125	-11.565	-13.687
1042.5	-12.822	-11.859	-12.696	-9.503	-11.835	-13.712
1045	-13.074	-12.212	-13.065	-9.887	-11.977	-13.821
1047.5	-13.564	-12.478	-13.525	-10.315	-12.25	-14.049
1050	-13.877	-12.728	-13.738	-10.611	-12.493	-14.34
1052.5	-14.052	-12.966	-14.235	-10.859	-12.672	-14.747
1055	-14.497	-13.231	-14.539	-11.231	-12.938	-15.129
1057.5	-14.958	-13.597	-14.925	-11.54	-13.275	-15.408
1060	-15.226	-13.86	-15.391	-11.724	-13.493	-15.798
1062.5	-15.505	-14.205	-15.585	-12.027	-13.789	-15.849
1065	-15.611	-14.63	-15.506	-12.284	-14.04	-15.786
1067.5	-15.443	-14.956	-15.307	-12.555	-14.39	-15.238
1070	-15.048	-15.383	-14.766	-12.851	-14.577	-14.553
1072.5	-14.336	-15.65	-14.021	-13.07	-14.948	-13.764
1075	-13.3	-15.873	-13.213	-13.354	-15.275	-13.005
1077.5	-12.419	-15.972	-12.383	-13.483	-15.502	-12.139
1080	-12.047	-16.115	-12.043	-13.843	-15.93	-11.451
1082.5	-11.526	-16.068	-11.426	-14.109	-16.265	-10.988
1085	-11.279	-15.695	-11.198	-14.439	-16.732	-10.817
1087.5	-11.125	-15.057	-11.043	-14.642	-16.996	-10.791
1090	-11.098	-14.13	-11.088	-14.963	-17.356	-10.838
1092.5	-11.107	-13.121	-11.154	-15.276	-17.397	-10.957
1095	-11.224	-12.088	-11.241	-15.491	-17.258	-11.136
1097.5	-11.365	-11.311	-11.472	-15.739	-16.616	-11.247
1100	-11.62	-10.925	-11.718	-15.856	-15.686	-11.445
1102.5	-11.8	-10.7	-11.848	-15.706	-14.695	-11.576
1105	-12.065	-10.705	-12.223	-16.154	-13.503	-11.894
1107.5	-12.2	-10.787	-12.356	-16.267	-12.17	-12.103
1110	-12.27	-11.019	-12.59	-16.676	-11.71	-11.926
1112.5	-12.634	-11.317	-12.76	-16.029	-10.913	-12.617
1115	-12.988	-11.823	-13.119	-15.759	-10.725	-12.935
1117.5	-13.399	-12.275	-13.445	-15.719	-10.731	-13.244
1120	-13.614	-12.551	-13.765	-15.513	-11.147	-13.543
1122.5	-13.759	-12.828	-13.946	-15.161	-11.511	-13.721
1125	-13.816	-13.01	-14.12	-14.63	-11.858	-13.818
1127.5	-14.161	-13.302	-14.388	-13.706	-12.169	-14.035
1130	-14.277	-13.526	-14.72	-13.037	-12.612	-14.343
1132.5	-14.292	-13.793	-14.957	-12.401	-12.657	-14.464

1135	-14.522	-13.956	-15.042	-11.923	-12.745	-14.635
1137.5	-14.463	-14.213	-15.525	-11.702	-13.012	-14.7
1140	-14.578	-14.308	-15.804	-11.727	-13.24	-14.928
1142.5	-14.579	-14.524	-15.902	-11.851	-13.339	-15.134
1145	-14.575	-14.646	-16.206	-11.979	-13.488	-15.286
1147.5	-14.761	-14.824	-16.439	-12.225	-13.572	-15.47
1150	-14.722	-14.868	-16.669	-12.335	-13.624	-15.57
1152.5	-14.697	-14.979	-16.633	-12.548	-13.776	-15.74
1155	-14.694	-15.179	-16.653	-12.814	-13.824	-16.014
1157.5	-14.854	-15.032	-16.15	-12.841	-13.934	-16.051
1160	-15.137	-15.714	-16.276	-13.316	-14.312	-16.394
1162.5	-15.454	-15.957	-15.981	-13.724	-14.368	-16.729
1165	-15.303	-16.292	-15.278	-14.039	-14.623	-17.104
1167.5	-15.378	-16.677	-14.673	-14.327	-14.751	-17.524
1170	-15.136	-16.846	-13.892	-14.654	-14.969	-17.768
1172.5	-14.997	-17.139	-13.494	-14.938	-15.199	-18.046
1175	-15.035	-16.999	-13.322	-15.176	-15.3	-18.184
1177.5	-15.078	-16.85	-13.15	-15.477	-15.533	-18.229
1180	-15.051	-16.271	-13.298	-15.579	-15.835	-17.805
1182.5	-15.151	-15.68	-13.424	-15.641	-15.664	-17.235
1185	-15.249	-14.895	-13.518	-15.725	-15.962	-16.31
1187.5	-15.261	-14.329	-13.74	-15.867	-16.218	-15.281
1190	-15.321	-14.123	-13.779	-16.039	-16.376	-14.378
1192.5	-15.615	-13.943	-13.859	-16.063	-16.636	-13.67
1195	-15.599	-14.017	-14.117	-16.159	-16.781	-13.326
1197.5	-15.824	-14.109	-14.304	-16.461	-17.088	-13.115
1200	-15.934	-14.141	-14.333	-16.564	-17.541	-13.046
1202.5	-16.057	-14.313	-14.485	-16.739	-18.009	-13.061
1205	-16.24	-14.371	-14.589	-16.73	-18.475	-13.135
1207.5	-16.246	-14.509	-14.599	-16.743	-18.843	-13.212
1210	-16.507	-14.681	-14.812	-17.003	-19.28	-13.289
1212.5	-17.016	-14.715	-15.047	-17.026	-19.103	-13.536
1215	-17.342	-15.093	-15.167	-17.14	-18.88	-13.513
1217.5	-17.236	-15.709	-14.917	-16.578	-17.669	-13.928
1220	-17.312	-15.792	-15.182	-15.884	-15.839	-14.065
1222.5	-16.946	-15.867	-15.786	-15.766	-14.868	-13.914
1225	-16.308	-15.722	-16.237	-15.39	-13.924	-14.061
1227.5	-15.693	-15.59	-16.566	-14.952	-12.886	-13.929
1230	-14.819	-15.594	-16.993	-14.723	-12.247	-13.785
1232.5	-14.142	-15.535	-17.087	-14.483	-12.113	-13.885

1235	-13.401	-15.425	-17.361	-14.303	-11.965	-13.792
1237.5	-12.559	-15.091	-17.461	-14.11	-12.239	-13.926
1240	-11.73	-14.763	-17.771	-13.851	-12.392	-13.976
1242.5	-11.353	-14.425	-17.521	-13.775	-12.633	-14.256
1245	-11.025	-14.084	-17.223	-13.653	-12.937	-14.537
1247.5	-10.661	-13.617	-16.447	-13.755	-13.108	-14.748
1250	-10.915	-13.778	-15.771	-14.004	-13.547	-15.039
1252.5	-11.018	-13.175	-15.086	-14.315	-14.166	-15.389
1255	-11.456	-13.327	-14.312	-14.672	-14.536	-15.811
1257.5	-11.991	-13.37	-13.664	-15.09	-14.92	-16.271
1260	-12.748	-13.386	-13.097	-15.342	-15.651	-16.561
1262.5	-13.476	-13.479	-12.913	-15.449	-16.003	-16.967
1265	-14.267	-13.73	-12.945	-15.542	-16.331	-17.337
1267.5	-15.291	-14.02	-13.467	-16.184	-17.089	-17.512
1270	-15.743	-14.776	-13.919	-15.901	-16.953	-18.28
1272.5	-17.033	-16.176	-14.756	-15.854	-17.351	-18.368
1275	-17.983	-17.697	-15.841	-16.265	-17.484	-18.742
1277.5	-18.733	-19.639	-16.567	-16.161	-17.491	-19.621
1280	-19.058	-21.015	-16.955	-16.098	-17.58	-20.387
1282.5	-19.567	-21.584	-17.307	-16.191	-17.43	-20.518
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1287.5	-20.194	-20.711	-17.451	-16.366	-17.223	-20.714
1290	-20.322	-19.921	-17.316	-16.21	-17.05	-20.15
1292.5	-20.459	-19.011	-17.098	-16.402	-16.767	-19.724
1295	-20.479	-18.088	-16.989	-16.342	-16.518	-18.653
1297.5	-20.443	-17.453	-16.882	-16.373	-16.206	-17.504
1300	-20.239	-17.084	-16.632	-16.671	-16.182	-16.522
1302.5	-20.06	-16.653	-16.588	-16.626	-16.011	-15.899
1305	-19.053	-16.563	-16.142	-16.2	-15.955	-14.983
1307.5	-18.442	-15.95	-16.319	-16.829	-15.925	-14.886
1310	-17.36	-15.741	-16.271	-16.799	-15.696	-14.215
1312.5	-16.524	-15.317	-16.214	-16.917	-15.669	-13.635
1315	-15.68	-15.154	-16.02	-16.909	-15.582	-13.253
1317.5	-15.162	-15.139	-16.105	-17.099	-15.582	-13.065
1320	-14.679	-15.063	-16.151	-17.178	-15.714	-13.166
1322.5	-14.331	-15.09	-16.096	-17.48	-15.659	-13.556
1325	-14.133	-14.957	-16.522	-17.939	-15.886	-13.723
1327.5	-13.705	-14.839	-15.945	-17.452	-16.631	-13.535
1330	-13.767	-14.951	-16.407	-18.587	-16.304	-14.449
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1337.5	-14.208	-15.102	-16.586	-21.087	-17.152	-14.432
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1345	-14.793	-15.236	-16.038	-16.214	-15.041	-14.766
1347.5	-14.84	-15.178	-15.936	-14.737	-14.638	-14.94
1350	-15.071	-15.304	-15.531	-13.577	-14.495	-14.992
1352.5	-15.221	-15.329	-15.2	-13.028	-14.565	-15.331
1355	-15.501	-15.618	-15.016	-12.888	-15.013	-15.391
1357.5	-15.358	-15.756	-14.624	-12.67	-14.962	-15.533
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1367.5	-15.548	-15.319	-13.997	-12.805	-15.093	-15.904
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1385	-16.467	-15.412	-14.47	-13.716	-15.493	-16.75
1387.5	-16.549	-15.346	-14.593	-13.749	-15.67	-16.782
1390	-16.32	-15.288	-14.761	-13.911	-15.723	-16.84
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1427.5	-14.245	-15.85	-16.37	-16.561	-15.337	-15.67
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1432.5	-14.472	-15.964	-16.535	-17.77	-15.886	-15.469

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1495	-18.273	-17.353	-14.438	-13.477	-13.994	-14.135
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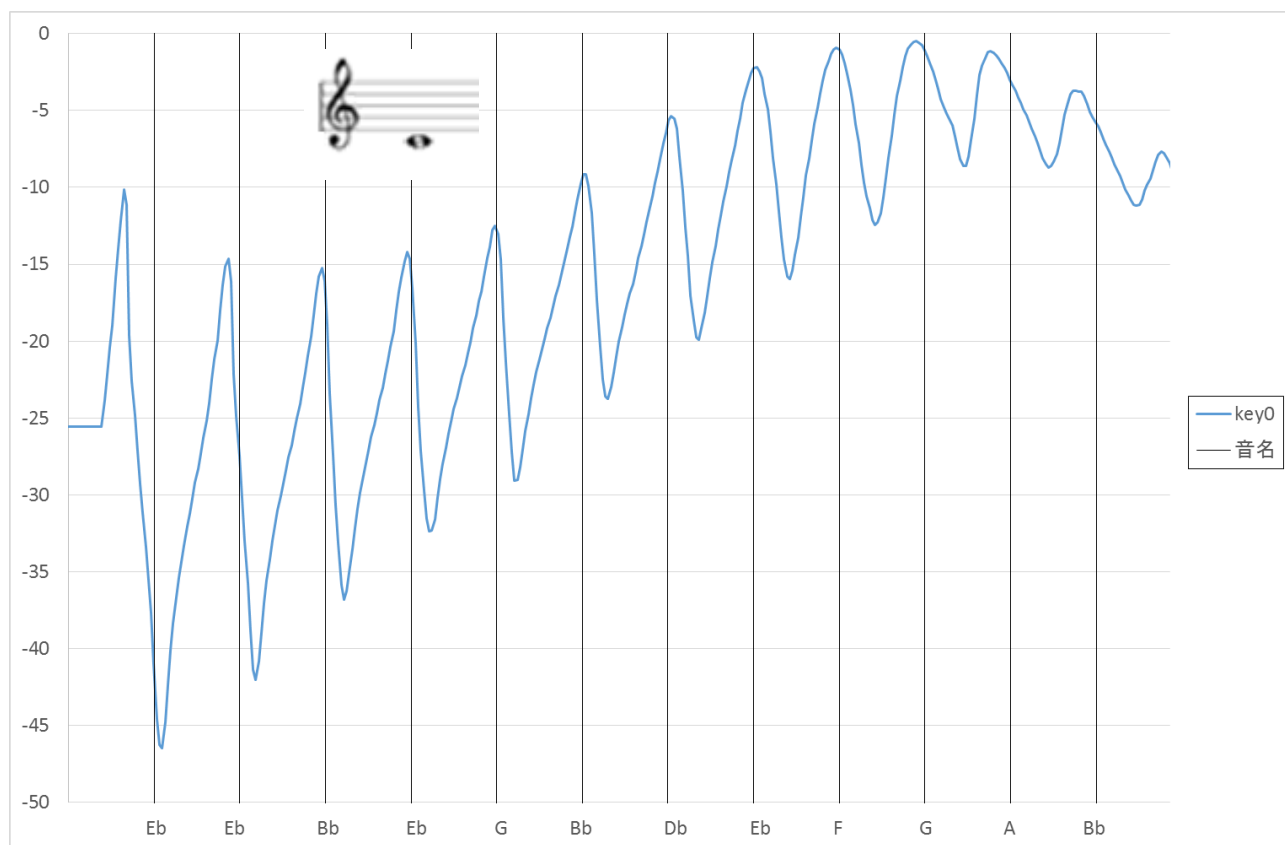
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1542.5	-15.753	-15.955	-17.246	-18.33	-19.233	-20.947
1545	-14.942	-16.227	-16.274	-17.794	-19.488	-19.162
1547.5	-16.005	-15.496	-16.473	-17.266	-17.29	-19.821
1550	-13.951	-15.616	-13.609	-14.945	-14.782	-20.232
1552.5	-14.927	-15.55	-15.841	-16.864	-15.937	-16.606
1555	-14.524	-15.309	-15.618	-16.043	-15.712	-16.425
1557.5	-15.084	-15.622	-15.53	-15.657	-15.1	-15.128
1560	-14.726	-15.748	-15.581	-15.414	-14.942	-14.925
1562.5	-14.612	-15.2	-15.337	-15.096	-14.215	-14.369
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1567.5	-14.204	-14.827	-15.099	-13.972	-13.275	-13.534
1570	-13.996	-15.305	-14.311	-14.342	-13.039	-13.361
1572.5	-14.457	-15.034	-14.743	-14.065	-13.247	-13.263
1575	-14.766	-15.338	-14.933	-14.183	-13.119	-13.275
1577.5	-14.793	-15.107	-14.914	-14.273	-13.04	-13.264
1580	-14.205	-14.835	-14.637	-14.181	-12.86	-13.322
1582.5	-14.571	-14.424	-14.49	-13.648	-13.096	-13.748
1585	-14.88	-14.42	-15.122	-13.868	-12.595	-14.288
1587.5	-14.84	-14.512	-14.437	-14.498	-12.841	-13.476
1590	-14.791	-14.592	-14.232	-14.427	-13.387	-13.629
1592.5	-15.022	-14.68	-14.468	-14.44	-13.46	-13.59
1595	-15.399	-14.844	-14.768	-14.637	-13.815	-14.001
1597.5	-15.357	-14.935	-14.574	-14.825	-13.744	-14.051
1600	-15.312	-14.847	-14.504	-14.927	-13.979	-14.158
1602.5	-15.387	-14.994	-14.656	-14.652	-13.934	-14.258
1605	-15.4	-15.086	-14.433	-15.013	-13.693	-14.07
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1610	-15.497	-14.91	-14.417	-15.069	-14.158	-14.486
1612.5	-15.17	-14.875	-14.433	-15.635	-14.067	-14.91
1615	-15.013	-15.003	-14.837	-15.032	-14.742	-14.603
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1620	-15.405	-15.304	-14.612	-15.23	-14.676	-14.819
1622.5	-15.206	-15.07	-14.596	-15.163	-14.621	-14.793
1625	-15.108	-15.121	-14.826	-15.271	-14.477	-14.958
1627.5	-15.548	-15.345	-14.752	-15.134	-14.856	-14.651
1630	-15.394	-15.279	-14.763	-15.364	-14.815	-14.862
1632.5	-15.912	-15.814	-14.825	-15.584	-15.04	-14.822

1635	-15.688	-15.48	-15.578	-15.553	-14.92	-15.004
1637.5	-15.486	-15.359	-15.302	-15.623	-15.366	-15.291
1640	-15.158	-15.357	-15.416	-15.855	-15.197	-15.235
1642.5	-15.302	-15.454	-15.588	-15.828	-15.55	-15.371
1645	-15.431	-15.442	-15.552	-15.759	-15.715	-15.489
1647.5	-15.146	-15.469	-15.884	-15.782	-15.836	-16.02
1650	-15.071	-15.056	-15.829	-15.603	-15.808	-15.327
1652.5	-14.716	-14.443	-15.145	-15.516	-17.005	-16.07
1655	-14.846	-14.227	-14.796	-14.931	-15.974	-16.357
1657.5	-14.393	-14.523	-14.712	-15.088	-16.752	-15.948
1660	-14.735	-14.426	-14.838	-14.74	-16.375	-15.871
1662.5	-14.655	-14.229	-13.921	-14.383	-15.979	-15.495
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1667.5	-14.196	-13.811	-13.888	-13.748	-16.023	-16.143
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1672.5	-13.788	-13.074	-13.711	-13.505	-15.146	-14.632
1675	-13.791	-13.283	-13.482	-13.193	-14.8	-14.231
1677.5	-13.403	-13.403	-13.027	-13.409	-14.197	-13.798
1680	-13.493	-12.95	-12.756	-12.85	-13.659	-13.697
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1685	-12.68	-13.056	-13.06	-12.458	-12.736	-12.625
1687.5	-13.048	-12.805	-12.996	-12.703	-12.824	-12.61
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1702.5	-12.694	-13.022	-12.748	-12.74	-12.345	-12.548
1705	-12.422	-13.083	-12.989	-12.981	-12.362	-12.242
1707.5	-12.543	-12.737	-12.856	-13.04	-12.467	-12.565
1710	-12.581	-12.95	-12.762	-12.702	-12.175	-12.512
1712.5	-12.665	-12.971	-12.766	-12.863	-12.432	-12.381
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1717.5	-12.563	-13.357	-12.736	-12.881	-12.292	-12.165
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1730	-12.38	-12.501	-13.202	-13.014	-12.474	-12.217
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1757.5	-12.671	-12.718	-12.535	-13.147	-12.858	-12.621
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1840	-11.311	-11.328	-11.956	-12.121	-11.149	-10.898
1842.5	-11.176	-11.393	-12.171	-12.067	-11.398	-11.064
1845	-11.356	-11.159	-11.915	-12.125	-11.286	-10.917
1847.5	-10.991	-10.979	-11.705	-12.094	-11.321	-11.173
1850	-11.277	-11.139	-11.605	-12.075	-11.163	-10.938
1852.5	-11.155	-10.862	-11.419	-11.775	-10.992	-10.711
1855	-11.088	-10.169	-12.29	-11.899	-10.872	-10.869
1857.5	-10.75	-9.917	-11.414	-12.385	-11.924	-11.469
1860	-10.512	-10.536	-10.838	-11.919	-11.569	-10.743
1862.5	-11.234	-10.802	-10.909	-11.187	-11.774	-10.668
1865	-10.757	-10.482	-10.466	-10.965	-11.61	-10.735
1867.5	-10.821	-10.67	-10.804	-10.925	-11.572	-11.112
1870	-11.318	-11.007	-10.296	-11.169	-11.343	-11.462
1872.5	-11.026	-10.708	-10.424	-10.893	-12.049	-11.197
1875	-11.122	-10.435	-10.564	-10.607	-11.839	-11.127
1877.5	-10.518	-10.91	-10.242	-10.565	-11.922	-11.303
1880	-10.718	-10.245	-10.371	-10.288	-12.066	-11.685
1882.5	-10.249	-10.857	-10.488	-10.158	-11.008	-11.19
1885	-10.534	-10.48	-10.139	-10.18	-11.327	-10.917
1887.5	-10.708	-10.444	-10.287	-9.908	-11.267	-11.501
1890	-10.399	-10.707	-10.453	-10.293	-11.35	-11.521
1892.5	-10.144	-10.76	-10.713	-10.552	-10.793	-10.9
1895	-10.251	-10.73	-10.822	-10.193	-11.147	-11.213
1897.5	-10.561	-11.313	-10.302	-9.894	-10.688	-11.693
1900	-10.263	-11.252	-10.905	-10.071	-10.8	-11.77
1902.5	-10.518	-10.688	-10.045	-9.509	-10.545	-11.17
1905	-10.555	-10.898	-10.81	-10.777	-10.946	-11.328
1907.5	-10.484	-10.635	-10.204	-9.843	-10.509	-11.563
1910	-11.082	-10.988	-10.891	-10.82	-9.498	-12.374
1912.5	-10.135	-10.462	-10.266	-10.017	-10.4	-11.229
1915	-10.336	-10.548	-10.249	-10.228	-9.881	-10.394
1917.5	-10.736	-10.893	-10.552	-10.057	-9.744	-10.794
1920	-9.876	-10.201	-10.344	-9.756	-9.639	-10.325
1922.5	-9.938	-10.602	-10.663	-10.025	-9.839	-10.049
1925	-10.512	-10.408	-10.823	-10.16	-9.785	-9.835
1927.5	-10.264	-10.272	-10.719	-10.255	-9.743	-9.848
1930	-10.106	-10.145	-10.662	-9.905	-9.564	-9.55
1932.5	-10.104	-10.12	-10.45	-10.143	-9.569	-9.761

1935	-10.542	-9.998	-10.5	-10.267	-9.887	-9.665
1937.5	-10.535	-10.271	-10.587	-10.554	-10.001	-9.937
1940	-10.007	-9.835	-10.72	-10.305	-9.645	-9.606
1942.5	-10.365	-9.987	-10.549	-10.353	-9.952	-9.729
1945	-10.18	-9.835	-10.375	-10.617	-9.734	-9.606
1947.5	-10.003	-9.933	-10.776	-10.21	-9.931	-10.133
1950	-10.219	-9.853	-9.929	-10.488	-9.565	-9.703
1952.5	-10.208	-9.748	-10.083	-10.322	-10.013	-9.716
1955	-10.256	-9.794	-10.283	-10.415	-10.027	-9.566
1957.5	-10.121	-9.933	-10.004	-10.142	-10.007	-9.75
1960	-10.006	-9.765	-9.845	-10.277	-9.715	-9.708
1962.5	-9.816	-9.676	-9.144	-10.061	-10	-9.332
1965	-10.214	-9.864	-9.346	-10.018	-10.023	-9.994
1967.5	-10.452	-9.483	-9.601	-10.019	-9.957	-9.381
1970	-9.689	-9.919	-9.652	-9.952	-9.965	-9.344
1972.5	-9.703	-9.594	-9.368	-9.705	-9.787	-9.658
1975	-9.86	-9.78	-9.324	-9.661	-10.094	-9.924
1977.5	-9.842	-9.504	-9.513	-9.678	-10.526	-9.305
1980	-9.024	-9.928	-9.593	-9.355	-9.68	-10.139
1982.5	-10.114	-10.002	-9.552	-9.41	-11.014	-9.319
1985	-9.364	-9.729	-9.339	-9.305	-10.421	-9.555
1987.5	-9.5	-9.934	-9.077	-9.457	-9.808	-9.4
1990	-9.53	-9.835	-9.451	-9.955	-10.083	-9.491
1992.5	-8.884	-9.704	-9.547	-8.655	-9.301	-9.713
1995	-9.079	-9.61	-9.668	-9.072	-9.901	-8.891
1997.5	-9.683	-8.849	-9.549	-9.04	-8.501	-9.435
2000	-9.283	-9.202	-10.052	-8.731	-8.978	-9.329



以下は、その数値である。(A=440Hz)

周波数[Hz]	key0	key1	key2	key3	key4	key5
0	-25.572	-26.144	-26.589	-26.802	-27.335	-28.747
2.5	-25.572	-26.144	-26.589	-26.802	-27.335	-28.747
5	-25.572	-26.144	-26.589	-26.802	-27.335	-28.747
7.5	-25.572	-26.144	-26.589	-26.802	-27.335	-28.747
10	-25.572	-26.144	-26.589	-26.802	-27.335	-28.747
12.5	-25.572	-26.144	-26.589	-26.802	-27.335	-28.747
15	-25.572	-26.144	-26.589	-26.802	-27.335	-28.747
17.5	-25.572	-26.144	-26.589	-26.802	-27.335	-28.747
20	-25.572	-26.144	-26.589	-26.802	-27.335	-28.747
22.5	-25.572	-26.144	-26.589	-26.802	-27.335	-28.747
25	-25.572	-26.144	-26.589	-26.802	-27.335	-28.747
27.5	-25.572	-26.144	-26.589	-26.802	-27.335	-28.747
30	-25.572	-26.144	-26.589	-26.802	-27.335	-28.747
32.5	-23.869	-24.645	-25.261	-25.696	-26.362	-27.591
35	-22.151	-22.994	-23.779	-24.252	-25.293	-26.744
37.5	-20.425	-21.206	-22.292	-22.866	-23.909	-25.636

40	-19.002	-20.219	-20.85	-21.008	-22.461	-24.421
42.5	-15.907	-17.743	-18.699	-20.14	-21.366	-23.226
45	-13.966	-15.552	-15.894	-16.822	-19.181	-21.977
47.5	-12.166	-12.587	-14.323	-15.259	-16.436	-20.182
50	-10.12	-10.776	-11.836	-13.105	-15.578	-19.086
52.5	-11.12	-10.764	-10.304	-11.228	-12.743	-15.972
55	-19.623	-18.302	-15.317	-13.204	-9.672	-13.482
57.5	-22.592	-21.65	-19.247	-17.271	-12.913	-10.9
60	-24.831	-24.199	-22.351	-20.97	-16.937	-9.494
62.5	-27.152	-26.753	-25.011	-23.278	-20.472	-12.559
65	-29.265	-28.014	-26.627	-25.434	-23.231	-16.583
67.5	-31.175	-30.596	-29.145	-27.617	-25.039	-19.938
70	-33.382	-32.547	-30.958	-29.678	-27.29	-22.455
72.5	-35.567	-34.403	-32.691	-31.438	-29.187	-24.433
75	-37.698	-36.849	-34.874	-33.483	-30.779	-26.396
77.5	-40.979	-38.838	-36.705	-35.21	-32.843	-28.339
80	-44.618	-42.155	-39.659	-37.611	-34.488	-29.959
82.5	-46.246	-45.334	-42.68	-40.206	-36.907	-31.733
85	-46.465	-47.028	-45.499	-43.272	-39.221	-33.529
87.5	-44.751	-46.842	-47.404	-46.413	-41.459	-35.295
90	-42.371	-44.345	-47.1	-47.601	-44.445	-37.317
92.5	-40.1	-41.994	-44.366	-46.436	-46.916	-39.425
95	-38.359	-39.803	-42.018	-44.352	-47.236	-42.134
97.5	-36.663	-37.973	-40.29	-41.802	-45.385	-44.916
100	-35.388	-36.734	-38.222	-39.667	-42.943	-46.417
102.5	-34.33	-35.491	-37.126	-38.196	-41.019	-47.717
105	-33.279	-34.191	-35.672	-36.972	-39.142	-46.296
107.5	-32.048	-33.161	-34.682	-35.769	-38.15	-43.362
110	-31.197	-32.31	-33.552	-34.688	-36.514	-41.591
112.5	-30.207	-31.3	-32.569	-33.541	-35.604	-40.044
115	-29.204	-30.335	-31.726	-32.67	-34.512	-38.414
117.5	-28.321	-29.439	-30.811	-31.751	-33.569	-37.234
120	-27.331	-28.591	-29.918	-30.851	-32.632	-36.075
122.5	-26.294	-27.647	-29.032	-30.009	-31.795	-35.026
125	-25.165	-26.623	-28.159	-29.166	-30.983	-34.128
127.5	-24.036	-25.59	-27.368	-28.4	-30.149	-33.314
130	-22.512	-24.386	-26.308	-27.554	-29.377	-32.441
132.5	-21.152	-23.395	-25.363	-26.662	-28.591	-31.755
135	-19.968	-22.27	-24.317	-25.699	-27.804	-30.972
137.5	-17.989	-20.799	-23.241	-24.647	-26.999	-30.313

140	-16.335	-18.845	-22.052	-23.611	-26.039	-29.532
142.5	-15.113	-16.879	-20.358	-22.586	-25.224	-28.815
145	-14.631	-15.776	-19.198	-21.238	-24.102	-28.147
147.5	-16.121	-14.849	-16.909	-19.484	-23.189	-27.42
150	-22.143	-15.135	-15.819	-17.831	-22.152	-26.681
152.5	-24.905	-17.355	-14.699	-16.601	-20.637	-25.854
155	-27.491	-23.118	-14.58	-14.999	-19.62	-25.037
157.5	-30.213	-25.026	-16.302	-14.324	-17.038	-24.153
160	-33.034	-28.542	-20.444	-14.842	-16.418	-23.231
162.5	-35.783	-31.188	-24.375	-17.428	-14.804	-22.323
165	-38.86	-33.155	-27.273	-22.883	-13.917	-20.908
167.5	-41.381	-35.707	-29.694	-25.057	-14.71	-19.764
170	-42.011	-38.63	-31.833	-27.874	-17.761	-18.345
172.5	-40.829	-40.864	-34.341	-30.227	-21.904	-16.94
175	-38.946	-41.662	-36.904	-32.414	-24.045	-15.269
177.5	-37.043	-40.723	-39.628	-34.855	-26.936	-13.899
180	-35.552	-39.172	-41.519	-37.485	-28.973	-13.182
182.5	-34.171	-37.65	-41.37	-39.909	-31.203	-14.07
185	-32.99	-36.177	-40.493	-41.181	-33.704	-16.828
187.5	-31.968	-34.745	-38.881	-41.614	-36.074	-20.428
190	-30.972	-33.69	-37.302	-40.051	-38.544	-23.374
192.5	-30.074	-32.558	-35.851	-38.607	-40.714	-25.409
195	-29.226	-31.598	-34.566	-37.039	-41.739	-27.929
197.5	-28.397	-30.751	-33.461	-35.73	-40.713	-29.892
200	-27.559	-29.916	-32.496	-34.477	-39.364	-32.039
202.5	-26.75	-29.139	-31.574	-33.389	-37.923	-34.429
205	-25.845	-28.399	-30.763	-32.475	-36.467	-36.531
207.5	-25.02	-27.607	-29.953	-31.534	-35.186	-38.91
210	-24.055	-26.878	-29.178	-30.712	-34.029	-40.47
212.5	-23.046	-26.115	-28.529	-30.075	-33.033	-40.591
215	-22.042	-25.317	-27.734	-29.258	-32.132	-40.32
217.5	-20.958	-24.49	-27.046	-28.509	-31.326	-38.647
220	-19.685	-23.596	-26.307	-27.831	-30.495	-37.285
222.5	-18.338	-22.669	-25.603	-27.17	-29.748	-35.927
225	-16.886	-21.728	-24.902	-26.494	-29.068	-34.725
227.5	-15.792	-20.717	-24.106	-25.788	-28.386	-33.644
230	-15.223	-19.574	-23.293	-25.076	-27.715	-32.77
232.5	-16.059	-18.142	-22.447	-24.314	-27.106	-31.86
235	-18.902	-17.058	-21.552	-23.621	-26.449	-31.032
237.5	-23.438	-15.686	-20.616	-22.745	-25.829	-30.341

240	-27.419	-15.082	-19.532	-21.857	-25.161	-29.667
242.5	-30.683	-15.286	-18.1	-21.026	-24.523	-28.98
245	-33.123	-16.878	-16.813	-20.118	-23.812	-28.362
247.5	-35.865	-20.176	-15.888	-18.802	-23.097	-27.752
250	-36.835	-24.484	-14.857	-17.617	-22.352	-27.119
252.5	-36.249	-26.665	-14.369	-16.717	-21.406	-26.548
255	-35.046	-29.586	-15.069	-15.225	-20.518	-25.975
257.5	-33.52	-32.385	-16.996	-14.42	-19.752	-25.392
260	-32.124	-34.742	-21.12	-14.04	-18.829	-24.804
262.5	-30.906	-36.154	-23.526	-14.572	-17.65	-24.267
265	-29.848	-36.335	-26.38	-16.611	-16.581	-23.636
267.5	-28.765	-35.2	-29.023	-19.987	-15.386	-22.954
270	-27.945	-34.073	-32.056	-23.146	-14.094	-22.336
272.5	-27.071	-32.672	-34.217	-26.333	-13.515	-21.572
275	-26.201	-31.549	-35.558	-28.521	-13.758	-20.869
277.5	-25.441	-30.506	-36.229	-31.131	-15.278	-20.076
280	-24.659	-29.553	-35.651	-33.297	-18.102	-19.184
282.5	-23.791	-28.66	-34.302	-35.056	-21.085	-18.092
285	-23.049	-27.815	-33.085	-35.839	-24.064	-16.934
287.5	-22.118	-27.066	-31.954	-35.52	-26.534	-16.164
290	-21.262	-26.324	-30.918	-34.765	-28.862	-15.005
292.5	-20.332	-25.602	-29.926	-33.332	-30.971	-13.627
295	-19.335	-24.897	-29.054	-32.292	-33.217	-12.898
297.5	-18.013	-24.159	-28.197	-31.125	-34.704	-12.571
300	-16.79	-23.641	-27.116	-31.055	-36.602	-13.122
302.5	-15.868	-22.724	-26.714	-29.303	-35.001	-15.103
305	-14.802	-21.952	-26.019	-28.504	-34.036	-17.979
307.5	-14.21	-21.243	-25.342	-27.701	-33.024	-20.711
310	-14.615	-20.29	-24.697	-26.978	-31.916	-23.61
312.5	-16.541	-19.422	-24.088	-26.281	-30.931	-25.873
315	-20.103	-18.45	-23.398	-25.643	-30.074	-27.858
317.5	-24.275	-17.266	-22.788	-24.96	-29.133	-29.839
320	-27.158	-16.645	-22.093	-24.331	-28.348	-30.48
322.5	-29.741	-15.559	-21.332	-23.754	-27.566	-30.898
325	-31.569	-14.459	-20.714	-23.133	-26.914	-31.91
327.5	-32.345	-14.005	-19.813	-22.512	-26.129	-33.558
330	-32.317	-14.255	-19.11	-21.851	-25.627	-33.578
332.5	-31.613	-15.449	-18.169	-21.161	-24.94	-33.336
335	-30.183	-17.92	-17.335	-20.455	-24.289	-32.183
337.5	-28.982	-21.66	-16.413	-19.69	-23.717	-31.115

340	-28	-23.955	-15.411	-18.981	-23.134	-30.239
342.5	-26.91	-26.737	-14.436	-18.031	-22.529	-29.283
345	-26.015	-29.289	-13.444	-17.133	-22.002	-28.402
347.5	-25.204	-30.85	-13.075	-16.487	-21.383	-27.653
350	-24.395	-31.436	-13.434	-15.513	-20.825	-26.974
352.5	-23.677	-31.609	-14.855	-14.544	-20.097	-26.28
355	-22.972	-30.444	-18.118	-13.439	-19.479	-25.681
357.5	-22.241	-29.504	-20.536	-12.887	-18.683	-25.038
360	-21.533	-28.414	-23.369	-12.706	-18.026	-24.456
362.5	-20.808	-27.359	-26.363	-13.356	-17.062	-23.831
365	-20.049	-26.455	-28.444	-15.605	-16.417	-23.336
367.5	-19.163	-25.625	-29.961	-17.936	-15.563	-22.775
370	-18.315	-24.859	-30.591	-21.269	-14.625	-22.226
372.5	-17.405	-24.111	-30.325	-23.82	-13.695	-21.777
375	-16.754	-23.5	-29.928	-26.187	-12.659	-21.206
377.5	-15.82	-22.833	-28.898	-28.215	-12.198	-20.648
380	-14.613	-22.162	-28.048	-29.485	-12.178	-20.112
382.5	-13.855	-21.561	-27.069	-30.006	-13.055	-19.544
385	-12.791	-20.904	-26.161	-29.969	-15.509	-18.976
387.5	-12.528	-20.349	-25.22	-29.103	-18.66	-18.474
390	-13.039	-19.699	-24.655	-28.26	-20.801	-17.866
392.5	-14.712	-19.025	-23.929	-27.433	-21.912	-17.141
395	-18.474	-18.266	-23.285	-26.569	-21.826	-16.45
397.5	-21.396	-17.528	-22.695	-25.963	-21.847	-15.598
400	-24.802	-16.831	-22.074	-25.142	-22.847	-14.912
402.5	-27.194	-16.046	-21.503	-24.432	-25.931	-14.084
405	-29.08	-15.062	-20.933	-23.743	-28.497	-13.237
407.5	-29.003	-14.374	-20.323	-23.021	-30.056	-12.125
410	-28.201	-13.281	-19.714	-22.321	-30.241	-11.207
412.5	-27.044	-12.606	-19.063	-21.665	-29.033	-10.368
415	-25.853	-11.761	-18.423	-21.063	-27.746	-9.729
417.5	-24.763	-11.487	-17.815	-20.449	-26.687	-9.636
420	-23.701	-11.897	-17.114	-19.829	-25.679	-10.157
422.5	-22.79	-12.977	-16.46	-19.304	-24.696	-11.633
425	-21.99	-15.241	-15.765	-18.725	-23.866	-13.98
427.5	-21.195	-18.705	-14.986	-18.099	-22.985	-17.042
430	-20.502	-21.64	-14.08	-17.491	-22.404	-19.441
432.5	-19.838	-24.336	-13.435	-16.868	-21.729	-21.858
435	-19.14	-26.523	-12.574	-16.206	-21.113	-23.932
437.5	-18.455	-27.737	-11.509	-15.497	-20.522	-26.254

440	-17.793	-27.609	-10.913	-14.668	-19.964	-27.978
442.5	-17.076	-26.77	-10.207	-14.062	-19.385	-29.032
445	-16.346	-25.602	-10.105	-13.299	-18.809	-28.79
447.5	-15.607	-24.538	-10.599	-12.481	-18.242	-28.13
450	-14.9	-23.487	-11.99	-11.533	-17.659	-27.168
452.5	-14.192	-22.655	-14.804	-10.975	-17.065	-26.068
455	-13.239	-21.72	-17.114	-10.45	-16.456	-25.027
457.5	-12.546	-20.816	-20.464	-10.425	-15.909	-24.093
460	-11.647	-19.979	-23.034	-11.141	-15.265	-23.175
462.5	-10.754	-19.179	-24.698	-12.752	-14.621	-22.226
465	-9.759	-18.472	-25.478	-15.617	-13.937	-21.429
467.5	-9.152	-17.852	-25.447	-17.338	-13.209	-20.748
470	-9.141	-17.338	-25.227	-18.39	-12.336	-20.172
472.5	-9.911	-16.726	-24.51	-17.666	-11.693	-19.609
475	-11.659	-16.112	-23.508	-16.779	-10.725	-19.05
477.5	-14.344	-15.478	-22.665	-15.712	-10.063	-18.505
480	-17.316	-14.767	-21.693	-15.98	-9.095	-17.945
482.5	-20.402	-14.122	-20.794	-17.614	-8.486	-17.366
485	-22.474	-13.408	-19.977	-20.813	-7.661	-16.841
487.5	-23.593	-12.664	-19.217	-23.305	-7.351	-16.304
490	-23.762	-11.741	-18.492	-24.288	-7.43	-15.743
492.5	-22.963	-11.118	-17.761	-24.082	-8.185	-15.195
495	-22.073	-10.161	-17.048	-23.38	-9.91	-14.606
497.5	-21.002	-9.188	-16.406	-22.287	-11.996	-14.008
500	-20.035	-8.551	-15.744	-21.287	-14.58	-13.452
502.5	-19.069	-7.872	-15.051	-20.409	-16.407	-12.848
505	-18.25	-7.405	-14.335	-19.58	-18.727	-12.187
507.5	-17.572	-7.526	-13.554	-18.757	-20.402	-11.42
510	-16.904	-8.295	-12.85	-18.016	-21.973	-10.775
512.5	-16.313	-9.802	-12.028	-17.359	-23.468	-10.067
515	-15.511	-11.785	-11.24	-16.659	-24.434	-9.107
517.5	-14.604	-14.323	-10.383	-15.952	-24.148	-8.468
520	-13.835	-16.42	-9.818	-15.253	-23.302	-7.64
522.5	-13.063	-19.396	-8.872	-14.517	-22.283	-6.658
525	-12.219	-21.143	-8.419	-13.875	-21.337	-6.069
527.5	-11.515	-22.239	-8.149	-13.201	-20.264	-5.256
530	-10.593	-22.4	-8.328	-12.544	-19.387	-4.854
532.5	-9.72	-21.794	-9.285	-11.78	-18.481	-4.843
535	-9.013	-20.835	-11.124	-11.142	-17.632	-5.283
537.5	-8.153	-19.795	-13.201	-10.423	-16.87	-6.343

540	-7.106	-18.837	-13.136	-9.508	-16.124	-7.953
542.5	-6.473	-17.839	-12.142	-8.826	-15.419	-10.205
545	-5.66	-16.878	-10.807	-8.04	-14.73	-12.138
547.5	-5.373	-15.963	-9.545	-7.213	-14.024	-13.713
550	-5.507	-15.136	-8.553	-6.194	-13.372	-15.611
552.5	-6.195	-14.319	-7.986	-5.586	-12.71	-17.546
555	-8.071	-13.552	-8.033	-4.694	-11.994	-19.003
557.5	-10.243	-12.702	-9.003	-4.348	-11.364	-20.019
560	-12.609	-12.009	-10.927	-4.208	-10.677	-20.293
562.5	-14.499	-11.258	-13.46	-4.523	-9.946	-20.042
565	-17.044	-10.4	-15.899	-5.717	-9.175	-19.562
567.5	-18.633	-9.622	-18.333	-7.256	-8.507	-18.862
570	-19.76	-8.771	-19.756	-8.707	-7.743	-18.3
572.5	-19.915	-8.069	-20.284	-10.922	-6.822	-17.886
575	-19.126	-7.25	-19.909	-12.434	-6.175	-18.182
577.5	-18.18	-6.232	-18.911	-14.475	-5.198	-18.149
580	-17.062	-5.61	-17.876	-15.895	-4.596	-17.726
582.5	-15.911	-4.645	-16.822	-17.615	-3.719	-16.808
585	-14.834	-3.987	-15.825	-18.867	-3.322	-15.896
587.5	-13.804	-3.563	-14.835	-19.315	-2.877	-15.01
590	-12.71	-3.448	-13.871	-19.118	-2.81	-14.146
592.5	-11.833	-3.723	-12.931	-18.575	-3.068	-13.305
595	-10.901	-4.311	-12.041	-17.706	-3.585	-12.47
597.5	-9.931	-5.455	-11.097	-16.803	-4.563	-11.722
600	-9.01	-6.984	-10.235	-15.936	-5.874	-10.961
602.5	-8.223	-8.69	-9.405	-15.117	-7.335	-10.156
605	-7.29	-10.682	-8.498	-14.276	-8.947	-9.41
607.5	-6.284	-12.243	-7.721	-13.433	-10.33	-8.718
610	-5.525	-13.602	-6.724	-12.426	-11.702	-7.955
612.5	-4.487	-15.186	-5.986	-11.475	-13.022	-7.117
615	-3.658	-16.833	-5.036	-10.631	-13.953	-6.444
617.5	-3.105	-17.593	-4.385	-9.758	-14.762	-5.582
620	-2.562	-17.515	-3.482	-8.805	-15.508	-4.916
622.5	-2.243	-16.763	-2.851	-8.037	-16.658	-4.041
625	-2.168	-15.559	-2.459	-7.191	-18.063	-3.46
627.5	-2.446	-14.476	-2.013	-6.238	-19.192	-2.898
630	-2.913	-13.287	-1.828	-5.505	-18.52	-2.219
632.5	-3.952	-12.159	-1.863	-4.549	-17.284	-1.778
635	-4.917	-11.064	-2.118	-3.901	-15.936	-1.417
637.5	-6.425	-10.004	-2.834	-3.041	-14.631	-1.239

640	-8.103	-8.992	-3.77	-2.582	-13.394	-1.131
642.5	-9.82	-7.99	-4.899	-2.085	-12.258	-1.244
645	-11.573	-7.016	-5.917	-1.638	-11.185	-1.59
647.5	-13.247	-5.92	-7.259	-1.403	-10.141	-2.292
650	-14.708	-5.145	-8.655	-1.347	-9.19	-3.085
652.5	-15.778	-4.107	-10.063	-1.493	-8.235	-4.006
655	-15.957	-3.477	-11.516	-1.952	-7.29	-4.804
657.5	-15.425	-2.691	-12.964	-2.641	-6.281	-5.865
660	-14.386	-2.322	-14.366	-3.514	-5.498	-7.117
662.5	-13.243	-1.907	-15.605	-4.509	-4.638	-8.085
665	-11.918	-1.771	-16.495	-5.613	-3.689	-9.245
667.5	-10.618	-1.849	-16.683	-6.576	-3.104	-10.429
670	-9.228	-2.112	-16.255	-7.966	-2.478	-11.652
672.5	-8.11	-2.824	-15.279	-9.192	-1.962	-12.916
675	-6.949	-3.69	-13.978	-10.27	-1.427	-14.148
677.5	-5.849	-4.718	-12.788	-11.675	-1.094	-15.389
680	-4.837	-5.616	-11.436	-12.812	-0.885	-16.362
682.5	-3.871	-6.84	-10.305	-14.037	-0.851	-17.046
685	-3.036	-8.151	-9.157	-15.105	-0.953	-17.191
687.5	-2.344	-9.443	-8.018	-15.796	-1.246	-16.769
690	-1.806	-10.585	-6.928	-15.952	-1.733	-15.9
692.5	-1.297	-11.496	-5.875	-15.432	-2.384	-14.787
695	-1.019	-12.065	-4.881	-14.422	-3.318	-13.568
697.5	-0.936	-12.105	-3.802	-13.316	-4.171	-12.349
700	-1.04	-11.589	-3.137	-12.042	-4.898	-11.152
702.5	-1.348	-10.643	-2.441	-10.761	-5.814	-9.982
705	-1.894	-9.459	-1.864	-9.486	-6.793	-8.882
707.5	-2.613	-7.972	-1.262	-8.337	-7.392	-7.808
710	-3.652	-6.946	-0.878	-7.189	-7.836	-6.778
712.5	-4.655	-5.752	-0.616	-6.089	-7.927	-5.778
715	-5.907	-4.599	-0.527	-4.995	-7.687	-4.702
717.5	-7.136	-3.768	-0.542	-3.898	-7.529	-3.915
720	-8.571	-3.085	-0.673	-3.153	-7.744	-3.109
722.5	-9.703	-2.646	-0.971	-2.426	-8.431	-2.318
725	-10.573	-2.473	-1.386	-1.824	-9.651	-1.753
727.5	-11.369	-2.554	-1.922	-1.189	-11.12	-1.222
730	-12.095	-2.919	-2.538	-0.776	-12.497	-0.791
732.5	-12.462	-3.609	-3.213	-0.493	-13.662	-0.44
735	-12.301	-4.643	-4.047	-0.341	-14.387	-0.324
737.5	-11.66	-5.939	-4.815	-0.283	-14.355	-0.217

740	-10.633	-6.584	-5.525	-0.336	-13.605	-0.176
742.5	-9.378	-7.192	-6.401	-0.501	-12.301	-0.2
745	-8.04	-7.626	-7.273	-0.769	-10.138	-0.295
747.5	-6.639	-8.455	-8.094	-1.145	-8.406	-0.452
750	-5.271	-8.624	-9.077	-1.614	-7.067	-0.693
752.5	-4.066	-7.94	-10.174	-2.145	-6.232	-1.024
755	-3.036	-6.791	-11.155	-2.717	-5.055	-1.419
757.5	-2.211	-5.314	-12.016	-3.325	-3.856	-1.868
760	-1.47	-4.349	-12.608	-3.964	-3.07	-2.344
762.5	-0.976	-3.237	-12.736	-4.74	-2.311	-2.847
765	-0.717	-2.205	-12.25	-5.368	-1.691	-3.373
767.5	-0.544	-1.756	-11.224	-6.142	-1.03	-3.999
770	-0.497	-1.24	-9.89	-6.966	-0.7	-4.565
772.5	-0.583	-1.065	-8.457	-7.832	-0.368	-5.108
775	-0.765	-1.068	-7.021	-8.759	-0.258	-5.765
777.5	-1.073	-1.193	-5.641	-9.722	-0.185	-6.458
780	-1.464	-1.48	-4.378	-10.678	-0.183	-7.285
782.5	-1.934	-1.886	-3.288	-11.513	-0.239	-8.025
785	-2.465	-2.503	-2.4	-12.012	-0.357	-8.895
787.5	-3.03	-3.089	-1.713	-11.94	-0.542	-9.815
790	-3.612	-3.583	-1.021	-11.242	-0.781	-10.742
792.5	-4.293	-4.255	-0.632	-10.056	-1.09	-11.645
795	-4.803	-5.091	-0.447	-8.622	-1.432	-12.304
797.5	-5.188	-5.718	-0.321	-7.128	-1.814	-12.507
800	-5.553	-6.485	-0.288	-5.669	-2.202	-12.081
802.5	-5.97	-7.193	-0.33	-4.321	-2.605	-11.165
805	-6.683	-7.84	-0.439	-3.178	-3.083	-9.853
807.5	-7.447	-8.206	-0.625	-2.294	-3.453	-8.392
810	-8.17	-8.412	-0.881	-1.66	-3.906	-7.004
812.5	-8.602	-8.273	-1.178	-1.08	-4.419	-5.845
815	-8.586	-7.748	-1.507	-0.794	-4.853	-4.934
817.5	-7.988	-6.928	-1.856	-0.681	-5.371	-4.245
820	-6.893	-5.915	-2.223	-0.648	-5.974	-3.692
822.5	-5.511	-4.554	-2.605	-0.726	-6.518	-3.149
825	-4.015	-3.578	-3.015	-0.915	-7.182	-2.544
827.5	-2.696	-2.638	-3.397	-1.152	-7.834	-1.997
830	-2.077	-1.876	-3.864	-1.448	-8.562	-1.439
832.5	-1.555	-1.215	-4.301	-1.747	-9.299	-0.881
835	-1.22	-0.877	-4.696	-2.003	-10.004	-0.636
837.5	-1.157	-0.762	-5.171	-2.194	-10.574	-0.463

840	-1.227	-0.741	-5.668	-2.314	-10.855	-0.415
842.5	-1.42	-0.844	-6.254	-2.35	-10.689	-0.463
845	-1.648	-1.032	-6.759	-2.363	-9.993	-0.581
847.5	-1.936	-1.279	-7.343	-2.357	-8.832	-0.755
850	-2.258	-1.583	-7.95	-2.355	-7.425	-0.987
852.5	-2.575	-1.922	-8.538	-2.416	-5.968	-1.252
855	-2.993	-2.346	-9.184	-2.568	-4.596	-1.55
857.5	-3.314	-2.667	-9.549	-2.776	-3.41	-1.854
860	-3.703	-3.082	-9.713	-3.071	-2.505	-2.166
862.5	-4.158	-3.603	-9.473	-3.467	-1.888	-2.484
865	-4.5	-4.111	-8.792	-3.987	-1.493	-2.812
867.5	-4.905	-4.611	-7.739	-4.713	-1.253	-3.184
870	-5.319	-5.302	-6.478	-5.366	-1.237	-3.471
872.5	-5.769	-6.221	-5.187	-6.341	-1.313	-3.815
875	-6.216	-7.003	-3.998	-7.662	-1.456	-4.167
877.5	-6.662	-7.886	-3.068	-9.448	-1.607	-4.533
880	-7.105	-8.587	-2.437	-11.13	-1.79	-4.917
882.5	-7.609	-9.018	-2.099	-11.733	-1.97	-5.244
885	-8.122	-9.31	-1.988	-11.551	-2.279	-5.59
887.5	-8.502	-9.553	-2.061	-11.374	-2.658	-5.944
890	-8.691	-9.747	-2.269	-11.16	-3.116	-6.305
892.5	-8.614	-9.815	-2.624	-10.871	-3.424	-6.684
895	-8.343	-9.738	-2.894	-10.419	-3.799	-7.081
897.5	-7.844	-9.552	-3.25	-9.883	-4.226	-7.485
900	-7.107	-9.202	-3.607	-9.145	-4.533	-7.879
902.5	-6.194	-8.717	-3.974	-8.234	-4.891	-8.285
905	-5.268	-8.161	-4.351	-7.189	-5.256	-8.717
907.5	-4.476	-7.519	-4.835	-6.106	-5.635	-9.212
910	-3.953	-6.734	-5.233	-5.087	-6.026	-9.769
912.5	-3.725	-5.862	-5.793	-4.212	-6.424	-10.41
915	-3.712	-4.948	-6.436	-3.513	-6.826	-11.137
917.5	-3.755	-4.061	-7.161	-2.822	-7.265	-11.946
920	-3.787	-3.123	-7.839	-2.468	-7.773	-12.629
922.5	-4.042	-2.755	-8.087	-2.399	-8.341	-12.949
925	-4.606	-2.665	-8.125	-2.672	-8.926	-12.707
927.5	-5.077	-2.927	-8.174	-3.016	-9.381	-12.021
930	-5.41	-3.354	-8.268	-3.405	-9.731	-11.186
932.5	-5.717	-3.831	-8.42	-3.884	-10.064	-10.145
935	-6.042	-4.354	-8.547	-4.388	-10.517	-8.921
937.5	-6.413	-4.782	-8.549	-4.799	-10.917	-7.63

940	-6.865	-5.244	-8.506	-5.234	-11.33	-6.322
942.5	-7.25	-5.691	-8.485	-5.658	-11.791	-4.984
945	-7.66	-6.126	-8.437	-6.073	-12.167	-4.281
947.5	-8.057	-6.535	-8.334	-6.483	-12.338	-3.689
950	-8.48	-6.948	-8.181	-6.869	-12.255	-3.411
952.5	-8.908	-7.348	-8.058	-7.251	-11.902	-3.447
955	-9.281	-7.776	-8.073	-7.615	-11.236	-3.675
957.5	-9.683	-8.122	-8.218	-7.983	-10.133	-4.05
960	-10.148	-8.491	-8.343	-8.353	-9.25	-4.474
962.5	-10.546	-8.895	-8.54	-8.697	-8.106	-4.914
965	-10.866	-9.295	-8.893	-9.109	-7.032	-5.356
967.5	-11.105	-9.676	-9.29	-9.447	-6.001	-5.808
970	-11.188	-10.054	-9.62	-9.814	-5.52	-6.292
972.5	-11.139	-10.441	-9.843	-10.159	-5.204	-6.623
975	-10.773	-10.797	-9.945	-10.52	-5.167	-6.99
977.5	-10.221	-11.222	-9.987	-10.893	-5.314	-7.347
980	-9.827	-11.651	-9.886	-11.282	-5.64	-7.695
982.5	-9.405	-12.055	-9.612	-11.687	-6.052	-8.037
985	-8.861	-12.385	-9.202	-12.103	-6.468	-8.399
987.5	-8.315	-12.593	-8.665	-12.516	-6.877	-8.689
990	-7.888	-12.608	-8.116	-12.875	-7.234	-8.991
992.5	-7.691	-12.391	-7.704	-13.194	-7.528	-9.269
995	-7.769	-12.008	-7.483	-13.344	-7.786	-9.547
997.5	-8.034	-11.388	-7.473	-13.321	-8.019	-9.816
1000	-8.465	-10.459	-7.622	-12.991	-8.347	-10.116
1002.5	-9.001	-9.605	-7.709	-12.115	-8.631	-10.377
1005	-9.304	-8.38	-7.936	-11.264	-8.975	-10.651
1007.5	-9.685	-7.884	-8.209	-10.161	-9.263	-10.977
1010	-10.009	-7.353	-8.629	-9.223	-9.439	-11.185
1012.5	-10.265	-7.269	-9.03	-8.445	-9.549	-11.381
1015	-10.511	-7.471	-9.43	-7.954	-9.85	-11.471
1017.5	-10.654	-7.803	-9.821	-7.675	-10.047	-11.665
1020	-10.82	-8.275	-10.191	-7.758	-10.406	-11.859
1022.5	-10.985	-8.73	-10.505	-8.01	-10.804	-12.069
1025	-11.148	-9.315	-10.969	-8.393	-11.265	-12.307
1027.5	-11.226	-9.705	-11.18	-8.835	-11.613	-12.619
1030	-11.401	-10.087	-11.624	-9.316	-11.989	-12.971
1032.5	-11.476	-10.497	-11.944	-9.621	-12.387	-13.405
1035	-11.679	-10.777	-12.223	-9.87	-12.747	-13.879
1037.5	-11.835	-11.039	-12.496	-10.128	-13.032	-14.514

1040	-12.067	-11.335	-12.736	-10.354	-13.401	-15.151
1042.5	-12.359	-11.531	-13.019	-10.641	-13.658	-15.697
1045	-12.637	-11.831	-13.348	-10.918	-13.987	-16.091
1047.5	-13.004	-12.084	-13.628	-11.242	-14.389	-16.31
1050	-13.427	-12.416	-14.01	-11.43	-14.662	-16.248
1052.5	-14.001	-12.677	-14.326	-11.7	-15.135	-15.989
1055	-14.229	-13.025	-14.651	-11.978	-15.623	-15.273
1057.5	-14.301	-13.273	-14.979	-12.287	-16.059	-14.395
1060	-14.063	-13.731	-15.286	-12.54	-16.509	-13.232
1062.5	-13.41	-14.024	-15.696	-12.824	-16.719	-12.417
1065	-12.791	-14.629	-16.191	-12.951	-16.781	-11.408
1067.5	-11.853	-14.897	-17.056	-13.367	-16.645	-10.849
1070	-11.339	-15.424	-17.6	-13.701	-16.293	-10.498
1072.5	-10.783	-15.921	-17.144	-13.986	-15.65	-10.44
1075	-10.508	-16.498	-15.58	-14.377	-14.756	-10.642
1077.5	-10.536	-16.641	-13.514	-14.774	-13.657	-10.657
1080	-10.51	-16.969	-12.289	-15.298	-12.409	-10.459
1082.5	-10.476	-16.773	-10.743	-15.601	-11.247	-10.232
1085	-10.688	-16.17	-10.12	-16.104	-10.399	-10.212
1087.5	-10.935	-14.918	-9.633	-16.496	-9.826	-10.294
1090	-11.244	-13.617	-9.558	-17.006	-9.563	-10.415
1092.5	-11.635	-12.39	-9.634	-17.354	-9.511	-10.589
1095	-11.899	-11.452	-9.842	-17.58	-9.568	-10.817
1097.5	-12.39	-10.643	-10.169	-17.28	-9.815	-11.029
1100	-12.743	-10.217	-10.397	-16.581	-10.007	-11.317
1102.5	-12.861	-10.201	-10.864	-15.424	-10.459	-11.553
1105	-13.214	-10.151	-11.122	-14.283	-10.637	-11.799
1107.5	-13.379	-10.295	-11.385	-12.94	-10.927	-12.052
1110	-13.147	-10.322	-11.544	-11.777	-11.164	-12.208
1112.5	-13.772	-10.631	-11.811	-11.015	-11.448	-12.455
1115	-13.894	-11.011	-12.105	-10.312	-11.812	-12.665
1117.5	-14.127	-11.341	-12.378	-10.045	-12.132	-12.95
1120	-13.948	-11.604	-12.617	-10.023	-12.3	-13.168
1122.5	-13.661	-11.883	-12.881	-10.18	-12.545	-13.33
1125	-13.3	-12.214	-13.066	-10.342	-12.773	-13.608
1127.5	-12.904	-12.274	-13.237	-10.666	-12.959	-13.671
1130	-12.47	-12.63	-13.498	-10.721	-13.165	-14.016
1132.5	-12.125	-12.871	-13.695	-10.96	-13.359	-14.061
1135	-11.429	-13.002	-13.693	-11.059	-13.467	-14.241
1137.5	-10.969	-13.121	-13.922	-11.15	-13.665	-14.501

1140	-10.385	-13.201	-13.985	-11.299	-13.909	-14.599
1142.5	-10.15	-13.019	-14.274	-11.428	-14.048	-14.901
1145	-10.111	-12.744	-14.119	-11.49	-14.182	-14.952
1147.5	-10.175	-12.828	-14.181	-11.621	-14.144	-14.955
1150	-10.303	-12.781	-14.265	-11.786	-14.316	-15.049
1152.5	-10.551	-12.821	-14.289	-12.037	-14.316	-15.063
1155	-10.948	-12.722	-14.158	-12.336	-14.463	-15.087
1157.5	-11.263	-12.718	-13.826	-12.521	-14.522	-14.803
1160	-11.789	-12.77	-13.611	-12.567	-14.48	-14.725
1162.5	-12.16	-12.671	-13.131	-12.76	-14.519	-14.251
1165	-12.49	-12.607	-12.647	-12.874	-14.391	-13.864
1167.5	-12.941	-12.574	-12.104	-12.972	-14.126	-13.31
1170	-13.617	-12.37	-11.377	-12.927	-13.702	-12.455
1172.5	-14.957	-12.13	-11.101	-12.939	-13.337	-12.01
1175	-16.224	-11.864	-11.127	-12.798	-12.569	-11.306
1177.5	-16.578	-11.993	-11.06	-12.661	-12.12	-10.907
1180	-17.04	-11.594	-11.379	-11.915	-11.577	-10.703
1182.5	-16.683	-11.569	-11.715	-11.385	-11.34	-10.898
1185	-15.964	-11.993	-12.275	-10.875	-11.399	-11.333
1187.5	-15.32	-13.135	-12.898	-10.548	-11.624	-12.042
1190	-14.833	-14.126	-13.46	-10.181	-11.916	-12.857
1192.5	-14.772	-15.261	-14.036	-10.009	-12.154	-13.609
1195	-14.946	-16.514	-14.263	-10.19	-12.658	-14.129
1197.5	-15.419	-17.255	-14.41	-10.87	-13.397	-14.525
1200	-15.932	-17.516	-14.785	-12.576	-14.024	-14.884
1202.5	-16.678	-17.836	-15.163	-14.79	-14.563	-15.043
1205	-17.54	-17.772	-15.994	-17.27	-14.758	-14.969
1207.5	-17.905	-17.583	-16.814	-22.431	-15.145	-15.097
1210	-18.623	-17.724	-17.536	-28.563	-15.379	-15.156
1212.5	-18.362	-17.792	-17.95	-39.324	-15.787	-15.2
1215	-17.704	-18.419	-18.171	-27.997	-16.105	-15.324
1217.5	-16.638	-19.355	-18.113	-22.774	-16.427	-15.411
1220	-15.32	-20.448	-17.925	-20.045	-16.839	-15.587
1222.5	-14.732	-20.487	-18.007	-17.931	-17.064	-15.691
1225	-13.911	-20.038	-18.142	-16.849	-17.303	-15.835
1227.5	-13.16	-19.298	-17.834	-15.982	-17.471	-15.908
1230	-12.918	-18.384	-17.802	-15.156	-17.611	-16.062
1232.5	-12.862	-17.811	-17.841	-14.734	-17.682	-16.271
1235	-12.695	-17.739	-17.912	-14.935	-17.562	-16.746
1237.5	-12.616	-16.866	-18.101	-14.483	-17.798	-16.574

1240	-12.746	-16.35	-17.985	-14.648	-18.05	-16.644
1242.5	-12.753	-15.724	-18.177	-14.519	-18.519	-16.956
1245	-12.863	-15.427	-18.113	-14.618	-18.903	-17.318
1247.5	-12.962	-15.095	-18.024	-14.733	-19.085	-17.682
1250	-13.475	-14.355	-18.015	-14.305	-19.958	-18.992
1252.5	-13.411	-14.373	-17.13	-14.899	-19.964	-20.538
1255	-13.518	-14.253	-16.606	-14.844	-19.662	-21.72
1257.5	-13.645	-14.147	-15.779	-14.858	-19.494	-22.061
1260	-13.572	-14.055	-15.159	-14.876	-19.155	-21.65
1262.5	-13.722	-14.154	-14.747	-15.084	-18.332	-21.331
1265	-14.04	-14.363	-14.251	-15.059	-17.759	-20.439
1267.5	-13.702	-14.097	-13.878	-14.976	-17.111	-19.684
1270	-14.246	-14.714	-13.61	-14.889	-16.504	-18.702
1272.5	-14.526	-14.993	-13.438	-15.048	-16.042	-17.721
1275	-14.571	-14.739	-13.343	-14.702	-15.351	-17.13
1277.5	-14.558	-14.845	-13.483	-14.696	-15.138	-16.28
1280	-14.639	-14.379	-13.346	-14.357	-14.291	-15.619
1282.5	-14.658	-13.995	-13.284	-14.371	-13.732	-14.83
1285	-14.914	-13.561	-13.135	-14.23	-13.361	-14.246
1287.5	-15.03	-13.399	-13.027	-14.226	-13.188	-13.439
1290	-15.163	-13.366	-12.971	-14.265	-12.958	-12.875
1292.5	-15.275	-13.473	-13.138	-14.424	-12.951	-12.453
1295	-15.26	-13.599	-13.258	-14.652	-12.937	-12.207
1297.5	-15.175	-13.627	-13.396	-14.857	-12.915	-12.183
1300	-15.314	-13.49	-13.671	-14.902	-12.719	-12.126
1302.5	-15.499	-13.573	-13.826	-15.061	-12.692	-12.214
1305	-15.706	-14.024	-13.722	-15.118	-12.858	-11.899
1307.5	-15.878	-13.62	-14.386	-15.202	-12.857	-12.274
1310	-16.266	-13.882	-14.485	-15.416	-13.177	-12.405
1312.5	-16.632	-13.951	-14.5	-15.491	-13.386	-12.526
1315	-16.92	-14.247	-14.441	-15.563	-13.518	-12.84
1317.5	-17.196	-14.396	-14.527	-15.503	-13.652	-13.15
1320	-17.169	-14.94	-14.621	-15.482	-14.108	-13.491
1322.5	-17.225	-15.539	-14.716	-15.585	-14.545	-14.151
1325	-16.809	-15.911	-14.709	-15.56	-15.09	-14.621
1327.5	-16.896	-16.029	-14.545	-15.012	-15.596	-14.711
1330	-16.774	-16.431	-14.798	-14.871	-15.778	-14.982
1332.5	-16.83	-16.988	-15.14	-14.744	-16.298	-15.059
1335	-16.704	-17.642	-15.474	-14.386	-16.277	-15.369
1337.5	-16.645	-18.288	-15.986	-14.362	-16.06	-15.663

1340	-16.504	-19.09	-16.331	-14.429	-16.214	-16.016
1342.5	-16.548	-19.56	-16.922	-14.673	-16.39	-16.188
1345	-16.205	-19.974	-17.758	-14.727	-16.306	-16.539
1347.5	-16.128	-20.217	-18.583	-14.832	-16.569	-16.586
1350	-15.712	-20.948	-19.436	-14.735	-16.571	-15.951
1352.5	-15.306	-20.038	-20.316	-15.041	-16.569	-15.892
1355	-15	-18.783	-20.815	-15.381	-16.594	-15.746
1357.5	-14.791	-17.17	-20.045	-15.428	-16.772	-15.566
1360	-14.986	-15.997	-18.886	-15.262	-16.816	-15.322
1362.5	-14.976	-14.732	-18.566	-15.919	-16.959	-15.862
1365	-15.454	-13.235	-17.43	-15.63	-16.872	-15.648
1367.5	-16.027	-12.485	-16.487	-15.763	-16.705	-15.717
1370	-16.327	-12.024	-15.572	-15.439	-16.499	-15.69
1372.5	-16.783	-11.764	-14.71	-15.241	-16.172	-15.932
1375	-16.386	-11.328	-14.089	-15.197	-15.94	-15.817
1377.5	-16.106	-11.571	-13.088	-15.17	-15.792	-15.597
1380	-15.197	-11.812	-12.36	-14.999	-15.633	-15.44
1382.5	-14.198	-11.886	-12.1	-14.786	-16.33	-15.978
1385	-13.532	-12.191	-12.163	-15.055	-15.757	-15.859
1387.5	-12.862	-12.479	-12.304	-14.985	-15.745	-16.049
1390	-12.135	-13.027	-12.582	-14.978	-15.659	-16.095
1392.5	-11.583	-13.275	-12.911	-15.088	-15.4	-16.137
1395	-10.998	-13.724	-12.975	-15.103	-15.173	-16.248
1397.5	-10.55	-13.916	-13.112	-15.089	-14.939	-16.405
1400	-9.976	-13.919	-13.413	-15.151	-14.483	-16.404
1402.5	-9.87	-13.771	-13.416	-15.262	-14.056	-16.401
1405	-9.879	-13.516	-13.387	-15.282	-13.744	-16.121
1407.5	-9.974	-13.45	-13.438	-15.622	-13.676	-16.027
1410	-10.135	-13.351	-13.561	-15.994	-14.516	-15.668
1412.5	-10.262	-13.153	-13.643	-16.164	-15.175	-15.425
1415	-10.6	-12.986	-13.799	-16.239	-14.586	-15.049
1417.5	-10.8	-12.908	-13.803	-16.144	-13.752	-14.483
1420	-11.23	-12.989	-13.63	-15.78	-13.427	-14.478
1422.5	-11.589	-12.952	-13.454	-15.294	-13.303	-14.268
1425	-12.028	-13.184	-13.418	-14.598	-13.084	-14.195
1427.5	-12.717	-13.39	-13.799	-14.238	-13.245	-14.382
1430	-13.442	-13.853	-14.193	-14.053	-13.586	-14.395
1432.5	-13.909	-14.707	-14.614	-14.064	-14.229	-14.613
1435	-14.658	-15.254	-15.101	-14.51	-14.555	-14.775
1437.5	-15.508	-15.759	-15.485	-15.027	-15.145	-15.055

1440	-16.517	-16.274	-15.897	-15.483	-15.18	-15.33
1442.5	-17.608	-16.443	-16.088	-15.678	-15.7	-15.484
1445	-19.004	-16.91	-16.212	-15.836	-16.144	-15.617
1447.5	-21.189	-17.813	-16.443	-16.206	-15.997	-15.656
1450	-24.265	-17.334	-16.406	-16.232	-16.186	-15.645
1452.5	-29.202	-17.518	-16.705	-16.574	-16.212	-15.681
1455	-36.048	-17.721	-16.615	-16.889	-16.274	-15.914
1457.5	-31.531	-17.835	-16.985	-18.192	-16.686	-16.952
1460	-25.711	-18.457	-17.386	-17.696	-16.555	-16.089
1462.5	-22.1	-19.969	-18.581	-17.364	-16.631	-15.859
1465	-20.135	-22.958	-20.86	-17.228	-16.519	-16.234
1467.5	-19.215	-27.904	-25.144	-17.01	-16.455	-16.163
1470	-17.423	-43.426	-30.871	-16.661	-16.365	-16.244
1472.5	-16.724	-26.879	-27.725	-16.842	-16.003	-16.011
1475	-15.974	-22.044	-22.892	-17.008	-16.192	-15.951
1477.5	-14.818	-19.538	-20.121	-16.331	-15.986	-15.97
1480	-14.019	-18.54	-18.582	-16.777	-16.619	-15.803
1482.5	-13.649	-17.74	-17.145	-16.698	-16.394	-15.932
1485	-13.652	-16.936	-16.464	-16.916	-16.503	-16.112
1487.5	-13.539	-15.936	-15.738	-17.009	-17.503	-16.18
1490	-13.58	-15.539	-15.349	-17.203	-18.429	-16.718
1492.5	-13.466	-14.671	-15	-16.835	-19.197	-16.704
1495	-13.306	-14.54	-14.724	-17.023	-20.405	-16.976
1497.5	-13.093	-14.665	-14.764	-17.283	-22.555	-16.962
1500	-13.221	-14.493	-14.63	-17.487	-21.889	-17.549
1502.5	-12.873	-14.478	-14.52	-17.114	-21.221	-17.456
1505	-12.956	-14.208	-14.66	-17.307	-20.222	-17.567
1507.5	-13.016	-14.49	-14.316	-16.978	-19.034	-17.457
1510	-12.988	-14.507	-14.425	-17.018	-17.793	-17.668
1512.5	-13.079	-14.444	-14.576	-17.007	-16.648	-17.978
1515	-13.059	-14.43	-14.588	-16.75	-16.145	-18.286
1517.5	-13.177	-14.117	-14.513	-16.641	-15.824	-18.16
1520	-13.362	-14.278	-14.643	-16.499	-15.261	-18.132
1522.5	-13.827	-14.094	-14.693	-16.201	-14.955	-18.027
1525	-14.031	-14.237	-14.697	-16.329	-15.198	-17.704
1527.5	-14.242	-14.265	-14.729	-16.123	-15.374	-17.431
1530	-14.571	-14.653	-15.006	-16.284	-15.426	-17.092
1532.5	-14.842	-14.512	-14.937	-16.526	-15.315	-16.775
1535	-15.004	-14.437	-15.071	-17.042	-15.269	-16.538
1537.5	-15.196	-14.523	-15.102	-17.046	-14.57	-16.472

1540	-15.108	-14.335	-15.237	-16.847	-14.353	-16.071
1542.5	-15.824	-14.548	-15.515	-16.535	-14.093	-16.019
1545	-14.842	-14.605	-15.302	-15.28	-13.804	-16.062
1547.5	-15.21	-14.498	-15.638	-14.53	-13.646	-15.388
1550	-15.487	-14.978	-16.059	-14.336	-13.713	-14.967
1552.5	-15.327	-14.787	-15.682	-13.841	-13.685	-14.084
1555	-14.55	-14.771	-15.815	-13.483	-13.181	-13.532
1557.5	-14.613	-14.708	-16.033	-13.234	-13.536	-13.649
1560	-14.298	-14.694	-16.147	-13.219	-13.403	-13.192
1562.5	-14.387	-14.538	-15.495	-13.247	-13.551	-13.324
1565	-14.38	-14.423	-15.711	-13.281	-13.771	-13.437
1567.5	-14.359	-14.302	-15.039	-13.751	-13.725	-13.418
1570	-14.525	-14.477	-14.426	-13.1	-13.121	-12.851
1572.5	-14.534	-14.078	-14.114	-13.613	-13.846	-13.604
1575	-14.702	-14.461	-13.994	-13.522	-13.893	-13.758
1577.5	-14.388	-14.15	-13.562	-13.818	-14.37	-14.09
1580	-15.405	-14.185	-13.325	-13.515	-14.191	-13.89
1582.5	-14.812	-14.148	-13.998	-14.072	-14.216	-13.759
1585	-14.898	-14.116	-13.895	-13.868	-14.023	-13.831
1587.5	-14.996	-14.258	-14.126	-13.549	-14.394	-13.614
1590	-14.667	-14.478	-13.822	-13.754	-13.931	-13.746
1592.5	-14.684	-14.1	-13.892	-13.889	-14.466	-14.05
1595	-14.922	-14.498	-14.078	-14.284	-14.576	-14.051
1597.5	-14.81	-14.408	-14.187	-14.27	-14.776	-14.129
1600	-14.939	-14.246	-14.379	-14.306	-14.809	-14.005
1602.5	-14.695	-14.448	-14.431	-14.167	-14.91	-14.019
1605	-14.834	-14.377	-14.512	-14.264	-15.157	-13.842
1607.5	-14.881	-14.463	-14.637	-14.568	-15.262	-14.299
1610	-14.583	-14.507	-14.475	-14.791	-15.237	-14.238
1612.5	-14.784	-14.002	-14.492	-14.77	-15.793	-14.252
1615	-13.35	-14.966	-14.79	-14.782	-15.364	-13.855
1617.5	-13.937	-14.731	-14.539	-14.966	-15.64	-14.463
1620	-13.912	-14.484	-14.611	-15.006	-15.392	-14.679
1622.5	-13.738	-14.586	-14.506	-14.876	-15.361	-14.233
1625	-13.605	-14.588	-14.452	-14.804	-15.029	-14.222
1627.5	-13.695	-14.703	-14.454	-15.086	-14.849	-14.453
1630	-13.737	-14.908	-14.342	-14.96	-14.41	-14.358
1632.5	-13.803	-14.861	-14.431	-15.015	-14.223	-14.312
1635	-13.607	-14.718	-14.426	-14.827	-14.03	-14.38
1637.5	-13.564	-14.939	-14.307	-14.986	-13.922	-14.375

1640	-13.339	-14.983	-14.273	-14.607	-13.588	-14.455
1642.5	-13.821	-15.096	-14.182	-14.624	-13.668	-14.847
1645	-13.901	-14.844	-14.34	-14.289	-13.624	-14.874
1647.5	-13.91	-14.8	-14.498	-14.142	-13.673	-14.906
1650	-13.871	-14.954	-14.445	-14.199	-13.496	-14.762
1652.5	-13.915	-14.792	-14.316	-14.079	-13.469	-15.059
1655	-14.077	-14.716	-14.627	-13.724	-13.327	-14.984
1657.5	-14.265	-14.711	-14.299	-13.909	-13.703	-14.853
1660	-14.084	-14.733	-14.356	-13.889	-13.333	-15.301
1662.5	-13.964	-14.816	-14.215	-13.639	-13.58	-15.377
1665	-14.179	-14.834	-14.634	-13.849	-13.456	-15.14
1667.5	-13.92	-14.72	-14.728	-13.686	-13.281	-14.874
1670	-14.068	-14.191	-14.224	-13.307	-12.996	-15.219
1672.5	-13.94	-14.204	-14.388	-13.496	-13.525	-14.711
1675	-13.902	-14.206	-14.275	-13.439	-13.431	-14.089
1677.5	-13.963	-13.836	-14.174	-13.568	-13.704	-13.707
1680	-13.762	-13.486	-14.19	-13.388	-13.695	-13.487
1682.5	-13.18	-14.204	-14.096	-12.335	-14.37	-13.113
1685	-14.073	-13.332	-13.614	-13.841	-13.247	-13.416
1687.5	-14.286	-13.458	-13.564	-13.021	-14.031	-13.161
1690	-13.957	-13.103	-13.105	-13.719	-14.267	-12.763
1692.5	-13.958	-12.868	-12.725	-12.831	-13.773	-12.822
1695	-13.975	-12.71	-13.188	-13.359	-13.711	-13.18
1697.5	-14.042	-12.797	-13.094	-13.54	-13.628	-13.056
1700	-14.186	-13.079	-12.573	-13.339	-13.377	-12.919
1702.5	-13.786	-12.698	-12.678	-13.571	-13.486	-12.914
1705	-13.293	-12.602	-12.324	-13.164	-13.983	-12.866
1707.5	-13.461	-12.966	-12.523	-13.433	-13.646	-12.929
1710	-13.135	-12.439	-12.531	-13.435	-13.816	-12.871
1712.5	-12.569	-12.461	-12.685	-13.487	-13.678	-12.87
1715	-12.238	-12.447	-12.577	-13.873	-14.334	-12.796
1717.5	-11.804	-12.493	-12.704	-13.587	-14.17	-12.775
1720	-11.406	-12.524	-12.69	-13.928	-14.065	-12.746
1722.5	-11.058	-12.237	-12.618	-13.812	-14.266	-12.873
1725	-10.843	-12.598	-12.423	-14.233	-14.03	-12.573
1727.5	-10.953	-12.592	-12.813	-13.877	-14.156	-12.75
1730	-11.32	-12.578	-12.623	-14.407	-13.817	-12.76
1732.5	-11.663	-13.075	-12.176	-13.431	-13.587	-12.938
1735	-12.138	-13.293	-12.141	-13.337	-12.044	-13.536
1737.5	-12.245	-12.537	-12.436	-13.324	-12.178	-12.781

1740	-12.333	-12.62	-12.561	-13.17	-12.458	-12.956
1742.5	-12.469	-12.724	-12.819	-12.834	-12.004	-12.803
1745	-12.439	-12.307	-12.749	-12.313	-12.196	-12.789
1747.5	-12.714	-12.452	-13.078	-12.2	-12.036	-12.66
1750	-12.873	-12.149	-12.778	-11.862	-11.929	-12.973
1752.5	-13.087	-12.555	-12.796	-11.709	-11.967	-12.561
1755	-13.112	-12.396	-12.877	-11.562	-11.727	-12.495
1757.5	-13.411	-12.527	-12.86	-11.135	-12.005	-12.526
1760	-13.744	-12.555	-12.914	-11.13	-11.709	-12.696
1762.5	-13.491	-12.515	-13.062	-11.207	-12.096	-12.372
1765	-13.839	-12.407	-13.085	-11.37	-11.876	-12.178
1767.5	-13.75	-12.491	-12.789	-11.096	-11.957	-12.213
1770	-14.013	-12.509	-13.101	-11.618	-11.871	-12.407
1772.5	-13.069	-12.096	-12.641	-11.324	-11.947	-12.062
1775	-13.671	-12.888	-12.759	-11.663	-11.83	-12.99
1777.5	-13.694	-12.541	-12.831	-12.122	-11.49	-13.295
1780	-13.65	-12.232	-12.486	-11.459	-11.273	-13.298
1782.5	-14.035	-12.335	-12.459	-11.862	-11.622	-13.68
1785	-13.004	-12.379	-12.24	-12.38	-11.428	-13.741
1787.5	-12.922	-12.431	-12.553	-12.007	-11.321	-13.734
1790	-13.229	-12.838	-12.597	-11.832	-10.831	-13.682
1792.5	-12.658	-12.598	-12.977	-12.536	-11.124	-13.141
1795	-12.612	-12.876	-12.666	-12.559	-11.429	-12.868
1797.5	-12.559	-12.74	-12.679	-12.239	-11.639	-12.363
1800	-12.254	-12.959	-12.085	-12.399	-12.393	-12.973
1802.5	-12.247	-12.794	-12.059	-12.401	-12.689	-12.434
1805	-11.622	-13.304	-11.666	-13.178	-13.045	-12.221
1807.5	-12.762	-12.415	-12.711	-12.793	-13.509	-11.652
1810	-12.009	-12.938	-11.064	-12.636	-12.805	-10.698
1812.5	-11.809	-12.248	-11.801	-12.911	-13.032	-11.422
1815	-11.91	-12.487	-11.796	-13.177	-13.325	-11.815
1817.5	-11.719	-12.371	-11.94	-13.04	-13.68	-11.446
1820	-11.504	-12.134	-11.57	-12.993	-13.138	-11.329
1822.5	-11.385	-12.123	-11.648	-13.228	-13.812	-11.078
1825	-11.216	-12.015	-11.937	-13.324	-13.107	-11.354
1827.5	-11.282	-11.623	-11.744	-12.75	-13.141	-11.13
1830	-11.251	-11.917	-11.753	-12.573	-13.559	-11.168
1832.5	-11.003	-11.868	-11.66	-12.376	-12.688	-11.135
1835	-11.182	-11.585	-11.731	-12.391	-12.805	-11.211
1837.5	-11.035	-11.578	-11.759	-11.621	-12.235	-10.95

1840	-11.037	-11.524	-11.887	-11.381	-11.71	-11.142
1842.5	-10.62	-11.466	-11.722	-11.019	-11.762	-11.176
1845	-10.929	-11.099	-11.678	-10.95	-11.105	-11.182
1847.5	-11.217	-11.112	-11.788	-10.93	-11.007	-11.445
1850	-11.334	-11.219	-11.673	-10.893	-11.127	-11.127
1852.5	-10.66	-10.782	-11.87	-10.604	-10.758	-11.171
1855	-9.908	-10.842	-11.213	-10.745	-10.519	-10.719
1857.5	-10.036	-10.672	-11.191	-9.946	-10.505	-10.605
1860	-10.605	-10.611	-11.571	-10.296	-10.234	-11.222
1862.5	-10.4	-10.535	-11.713	-10.791	-9.982	-11.673
1865	-10.712	-10.348	-11.049	-10.211	-10.121	-11.134
1867.5	-10.642	-10.788	-11.313	-10.389	-10.512	-11.203
1870	-10.624	-10.465	-10.973	-10.552	-10.544	-11.039
1872.5	-10.49	-10.373	-11.077	-10.661	-10.602	-11.637
1875	-10.726	-10.348	-11.157	-10.472	-10.774	-11.588
1877.5	-10.174	-10.195	-10.449	-10.391	-10.594	-11.165
1880	-11.497	-9.74	-10.346	-10.364	-10.568	-11.541
1882.5	-10.539	-10.495	-10.257	-10.287	-10.441	-11.569
1885	-10.161	-10.221	-10.17	-10.145	-9.886	-10.861
1887.5	-10.513	-10.53	-10.031	-10.53	-10.035	-11.372
1890	-10.544	-10.335	-10.021	-10.471	-10.347	-11.136
1892.5	-10.341	-10.394	-10.048	-9.922	-10.782	-11.215
1895	-10.518	-10.559	-9.638	-10.502	-10.428	-11.036
1897.5	-10.598	-10.618	-10.084	-10.337	-9.972	-10.563
1900	-10.348	-10.37	-9.818	-10.765	-9.955	-10.09
1902.5	-10.034	-10.293	-9.953	-10.265	-10.386	-10.696
1905	-10.287	-10.241	-10.538	-10.543	-10.994	-10.031
1907.5	-10.055	-10.537	-10.427	-10.345	-11.167	-10.714
1910	-9.9	-10.722	-10.223	-9.449	-11.109	-10.06
1912.5	-10.666	-10.54	-10.138	-10.318	-10.29	-9.83
1915	-9.973	-11.02	-9.761	-9.783	-10.233	-9.692
1917.5	-10.993	-10.557	-10.545	-10.426	-10.241	-10.256
1920	-10.036	-10.175	-9.997	-10.386	-10.408	-9.404
1922.5	-10.47	-10.31	-10.271	-10.601	-10.402	-9.705
1925	-10.613	-10.581	-10.154	-10.422	-10.263	-9.897
1927.5	-10.284	-10.466	-10.412	-10.566	-10.38	-9.796
1930	-10.247	-10.131	-10.215	-10.186	-10.442	-9.693
1932.5	-10.281	-10.044	-10.085	-10.19	-10.449	-9.695
1935	-10.223	-10.384	-9.969	-10.213	-10.456	-10.015
1937.5	-10.535	-10.479	-10.297	-10.455	-10.631	-10.073

1940	-10.259	-10.351	-9.997	-10.446	-10.347	-9.651
1942.5	-10.153	-10.16	-10.178	-10.194	-10.695	-9.793
1945	-10.196	-10.194	-9.955	-10.095	-10.4	-9.616
1947.5	-10.563	-10.427	-10.772	-10.399	-10.46	-9.843
1950	-10.034	-10.098	-10.512	-10.287	-10.56	-9.962
1952.5	-10.009	-10.032	-10.419	-10.347	-10.516	-9.939
1955	-9.989	-10.378	-10.481	-10.402	-10.263	-10.178
1957.5	-10.418	-10.467	-10.563	-10.463	-10.423	-9.914
1960	-10.282	-10.395	-10.593	-10.015	-10.342	-9.665
1962.5	-10.064	-9.881	-10.519	-10.075	-9.744	-9.928
1965	-9.72	-10.484	-10.597	-10.146	-9.827	-10.048
1967.5	-9.965	-9.708	-10.564	-9.961	-9.62	-9.596
1970	-9.744	-9.838	-10.31	-10.158	-9.817	-9.948
1972.5	-9.762	-9.545	-10.347	-9.741	-9.408	-10.013
1975	-9.566	-9.981	-10.189	-9.615	-9.862	-9.72
1977.5	-10.426	-10.262	-10.22	-9.759	-9.177	-10.35
1980	-9.958	-8.776	-9.62	-9.72	-9.856	-9.528
1982.5	-9.878	-10.64	-9.912	-9.862	-9.439	-10.505
1985	-9.515	-9.491	-9.506	-9.776	-9.591	-10.174
1987.5	-9.604	-9.642	-9.662	-9.641	-9.685	-10.02
1990	-9.602	-9.58	-9.506	-9.355	-9.35	-9.945
1992.5	-10.152	-9.638	-9.703	-9.622	-9.329	-9.983
1995	-9.568	-9.333	-9.441	-9.647	-9.294	-10.347
1997.5	-9.406	-9.729	-9.591	-10.186	-9.577	-10.736
2000	-9.06	-10.041	-9.44	-9.608	-9.82	-10.003

キートランペットの為の協奏曲 変ホ長調

J.Haydn 1976

Allegro 5 Viol. *f* *tr* 4

15: 20 Solo 0 2 0 0 2 0 1 0 5 1 0 5 0

41 *tr* 0 5 1 0 5 0 5 1 0 0 0 0 1 5 0 1 0 0 1 0 5 1

46 0 0 0 0 1 0 5 1 0 0 0 0 0 1 0 0 0 0 1

52 0 0 0 0 1 5 1 5 1 5 1 5 1 5 0 2

60 *tr* *tr* 0 5 0 5 1 0 1 0 0 5 1 0 1 0 0 1 5 1 0 1 0 0

66 1 0 0 3 0 0 0 1 0 1 1 5 2 0 0 1 5 1

73 0 3 0 1 5 1 0 5 0 2 0 0 0 0 5 1 0 0 0 5

80 *tr* 9 0 0 0 1 5 0 5 1 0 0 5 1 0 0

95 0 4 0 1 0 0 0 4 0 1 0 0 0 1 0 0 0 4

101
5 0 1 0 3 0 0 0 4 4 0 0 0 0 1 1 0 0 0 0 1 1 5

104
0 5 1 0 0 0 4 0 0 0 4 0 0 0 0 1 0 0 4 0 0 1

107
0 0 0 1 0 0 0 4 0 4 0 0 0 1 0 0 0 0 4 0 0 0 1 0 0 0 0 4 0 3

110
0 0 5 3 0 0 1 1 7
0 1 0

125
0 2 0 0 0 2 0 1 0 5 1 0 5 0 0 5 1 0 5

130
0 5 1 0 0 0 0 0 1 5 0 1 0 0 1 0 5 1 0 0 0

135
0 1 0 0 0 4 0 0 0 0 0 0 4 0

141
0 0 0 0 0 0 4 0 1 0 5 0 1 0 2

146
0 0 0 0 0 0

152
0 0 0 1 0 0 0 4 0 0 0 0 0 0 0 0 1 0 0 0 4 0 0 1 4 0 0 1 0

157
0 1 0 5 1 0 5 0 0 1 0 0 1 0 5 0 1 0 0 4

Andante

8

[cantabile]

Musical staff 8: Treble clef, 6/8 time signature. The staff contains a sequence of notes with a fingering line below: 1 0 5 0 0 0 1 5 0 0 0 5 0 1.

Musical staff 12: Treble clef. The staff contains a sequence of notes with a fingering line below: 0 0 1 2 0 1 0 5 0 0 0 1 0 1 0 1 0 5 0 0 3.

Musical staff 15: Treble clef. The staff contains a sequence of notes with a fingering line below: 0 0 0 5 0 1 0 0 1 0 5 1 0 3 0 1 0.

Musical staff 20: Treble clef. The staff contains a sequence of notes with a fingering line below: 0 1 0 0 1 2 3 0 1 0 1 0 3 1 0 3 0 1 0 0.

Musical staff 24: Treble clef. The staff contains a sequence of notes with a fingering line below: 1 1 0 1 0 3 0 3 0 1 0 1.

Musical staff 32: Treble clef. The staff contains a sequence of notes with a fingering line below: 0 1 0 5 0 0 0 1 5 0 0 0 5 0 1 0 0 1 2 0.

Musical staff 37: Treble clef. The staff contains a sequence of notes with a fingering line below: 1 0 5 0 0 0 1 0 1 0 1 0 5 0 0 4 3 0 0 0 5 0 1 0 0 1 0 5 1.

Musical staff 42: Treble clef. The staff contains a sequence of notes with a fingering line below: 0 1 0 0 0 0 0 4 3 0 0 0 5 0 0 0 1 0 0.

Musical staff 46: Treble clef. The staff contains a sequence of notes with a fingering line below: 1 0 5 1 0 1 0 0 1 0 0.

127

1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 0 0 4 4 0 0

134

0 0 0 0 1 0 0 0 0 0 1 5 0 5 0 1 2 1 0 0 0 0

145

1 1 0 0 0 0 1 5 0 0 0 0 1 1 0 5 0

154

5 5 0 5 0 2 0 0

162

1 5 0 3 0 1 0 1 0 6

179

0 0 0 5 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 5 1 0

188

0 0 0 4 4 0 0 0 0 0 0 0 4 0 1 0 0 1 0 7 0 0 0

201

1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 4 0 5 0 5

207

1 5 1 0 0 0 0 1 0 1 0 1 0 2 0 0 2 0 0 0 1 4 0 0 2 0 0 0 1 4

214

0 5 4 0 0 0 0 0 4

227

0 0 1 2 0 1 2 0 5 0 0 5 0 1 0 0 1

241

6 tr tr tr tr tr 14

0 0 0 0 0 0 1 5 0 0 1 0 14

271

3 2

0 0 0 0 0 0 0 2

282

0 0 5 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 0

291

0 0