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What are the limits to the size of practical dynamic combinatorial libraries?

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Supporting Information

The table below displays the log binding constant and concentration (as a fraction of the overall library) in the presence of template of the best binders from all of the libraries used to generate Figures 2 and 3 in the main text. Also shown are the parameters for the generation of the libraries.

Compounds in library Threshold logK	10		18		32		56		100
	n/a		n/a		n/a		n/a		n/a
	[best]	logK _{best}	[best]	logK _{best}	[best]	logK _{best}	[best]	logK _{best}	[best]
	0.532435	1.514278	0.318292	1.507755	0.305379	1.760878	0.242591	1.922787	0.16451
	0.527997	1.460977	0.308273	1.448705	0.25957	1.524309	0.829938	3.418197	0.298697
	0.543176	1.552352	0.25259	1.280898	0.751705	2.548435	0.4978	2.835672	0.149932
	0.592191	1.226566	0.336582	1.771123	0.635438	3.112577	0.208521	1.882364	0.206714
	0.660475	1.82869	0.3178	1.12073	0.666792	2.707106	0.385143	2.316189	0.182636
	0.414982	1.510661	0.43958	1.843975	0.369219	2.213496	0.262336	2.030761	0.416036
	0.463528	1.636251	0.482382	1.986562	0.236633	1.687687	0.163425	2.035319	0.175384
	0.717567	1.753557	0.734562	2.074005	0.470562	1.92775	0.372466	2.242491	0.517219
	0.879791	2.573801	0.384136	1.34771	0.263885	1.644523	0.343025	2.259483	0.352782
	0.925027	2.427497	0.465906	1.806424	0.648188	2.062016	0.55726	2.444509	0.224518
	0.534279	1.677568	0.318187	1.742919	0.380863	2.005864	0.789855	3.382073	0.245865
	0.34968	1.289614	0.620681	1.749693	0.487495	2.097682	0.517229	2.622113	0.381974
	0.515965	1.029448	0.473805	2.05204	0.675476	3.162775	0.375289	2.366624	0.483537
	0.569508	1.102574	0.2021	0.838997	0.364918	2.030489	0.349241	2.330668	0.468489
	0.464711	1.421233	0.514474	1.782071	0.518659	2.61521	0.629328	3.094471	0.314986
	0.699797	1.575604	0.815796	2.000066	0.310516	1.706553	0.193573	1.725638	0.236031
	0.61003	2.05014	0.25053	1.243425	0.905697	3.653251	0.412206	2.258319	0.287034
	0.489866	1.438293	0.170997	1.238478	0.439435	2.56577	0.372764	2.301604	0.187507
	0.691128	2.314077	0.546944	1.715769	0.423433	2.096166	0.229689	1.948502	0.240733
	0.671138	1.551062	0.216309	1.219322	0.500551	2.294157	0.174552	1.846298	0.261759
	0.369648	0.978006	0.538534	1.656871	0.434635	1.82399	0.493714	2.729799	0.23
	0.617315	1.962727	0.881821	2.928557	0.515392	2.368312	0.665658	2.857298	0.28852
	0.551272	1.32454	0.315168	1.141972	0.550312	2.396426	0.260228	1.922366	0.244869
	0.42078	0.528393	0.499464	1.268689	0.560096	2.805772	0.283248	1.95728	0.357034
	0.341805	1.581973	0.463225	2.384548	0.349186	2.173264	0.596605	3.180532	0.301638
	0.5938	1.634778	0.450509	1.543545	0.522338	2.305079	0.27147	2.168297	0.297486
	0.901416	2.116053	0.459097	2.015113	0.808067	2.977632	0.138692	1.475503	0.181069
	0.520335	1.750782	0.7904	2.607897	0.561047	2.233865	0.318698	2.125109	0.75969
	0.400521	0.591379	0.632071	1.88766	0.426738	1.930801	0.247976	2.092501	0.278961
	0.413241	0.619065	0.453442	2.073843	0.584869	2.116125	0.437895	2.57709	0.332186
	0.28621	0.798542	0.485726	1.532141	0.308786	2.158415	0.177697	1.911794	0.296478
	0.822785	2.815765	0.291738	1.330164	0.256316	1.599136	0.225717	1.591313	0.137007
	0.744441	1.671388	0.611233	2.672718	0.296016	1.877926	0.471489	2.095335	0.451023
	0.638469	1.832208	0.600098	1.869076	0.302482	1.852696	0.310208	2.296445	0.163709
	0.50659	1.404503	0.362092	1.938495	0.375443	2.028081	0.171564	1.735435	0.252959
	0.509307	1.819818	0.629653	2.007677	0.874441	2.932765	0.304349	2.240003	0.180654
	0.926883	2.373807	0.298914	1.086415	0.365121	2.029883	0.334783	2.229876	0.64427
	0.352941	0.976492	0.318073	1.627694	0.322537	1.748779	0.667264	3.030338	0.159755
	0.423014	1.04958	0.495726	2.038756	0.275557	1.802473	0.610214	2.665717	0.179463
	0.844911	1.714067	0.544862	1.950106	0.638582	2.529789	0.357547	2.035303	0.115409
	0.312103	1.356625	0.845468	2.754277	0.333936	2.024047	0.376676	2.457608	0.287677
	0.410454	1.110644	0.280092	1.36993	0.267312	1.839634	0.478537	2.91643	0.181975
	0.380043	1.550786	0.53208	2.533674	0.774723	3.225233	0.136428	1.809275	0.287691
	0.563138	1.633312	0.254685	1.576148	0.478027	2.451694	0.412825	2.471446	0.301767
	0.295449	0.699344	0.537545	2.246616	0.38583	1.662216	0.238958	2.060442	0.232603
	0.36241	1.11869	0.462828	1.784459	0.52122	2.258726	0.222824	1.505161	0.217759
	0.585966	1.912657	0.614403	2.253361	0.228535	1.538218	0.680135	3.160673	0.307981

0.476342	0.753177	0.680793	2.098143	0.559864	2.283314	0.334245	2.446269	0.169859
0.411956	0.543234	0.446067	1.742658	0.364655	1.81833	0.687047	2.715329	0.312627
0.62324	1.052116	0.577953	1.84054	0.403969	1.85529	0.335474	2.08698	0.158792
0.602314	1.837138	0.844182	2.583263	0.276021	1.757601	0.493107	2.716792	0.421487
0.466338	0.746925	0.441483	1.628694	0.30249	2.020257	0.190413	1.730295	0.382977
0.309214	1.326073	0.428326	1.7487	0.211081	1.409458	0.204344	1.911409	0.182006
0.632412	1.951514	0.554505	1.538028	0.632825	2.79409	0.28781	2.41793	0.489452
0.236461	0.828151	0.453051	1.409013	0.532327	2.902484	0.357814	2.38243	0.274821
0.607096	1.235834	0.351044	1.266615	0.732992	2.768015	0.307515	2.121531	0.106249
0.441331	1.627003	0.269994	1.402891	0.820972	2.898493	0.216521	1.672616	0.441242
0.53949	1.294759	0.385464	1.081081	0.263545	1.750291	0.479041	2.790659	0.44991
0.318858	0.713707	0.583391	2.416947	0.641269	2.378201	0.278539	2.590994	0.412471
0.694423	1.681361	0.232537	0.792479	0.662096	2.711615	0.123842	1.58994	0.373722
0.383241	1.073542	0.74573	1.981723	0.902711	3.246894	0.220646	1.911207	0.59399
0.581919	1.705544	0.567798	1.954513	0.226722	1.641888	0.336868	2.203298	0.154881
0.882513	2.378581	0.457838	2.051244	0.407034	2.256147	0.169373	1.712181	0.259134
0.657756	1.994544	0.880026	2.80257	0.405241	2.169716	0.334978	2.417741	0.445306
0.839992	2.113428	0.600817	1.395615	0.633103	2.54299	0.165672	1.679026	0.178498
0.431416	1.594838	0.298236	1.483652	0.233318	1.626483	0.437064	2.929304	0.262791
0.766231	1.772243	0.561156	1.878875	0.342716	1.878133	0.190947	1.824328	0.163066
0.359617	1.646349	0.772536	2.471874	0.493208	2.063173	0.174127	1.55861	0.575852
0.417561	1.274412	0.336889	1.428117	0.153338	1.30506	0.23527	2.042046	0.33199
0.518221	1.578313	0.312491	1.499285	0.575272	2.691439	0.386179	2.147182	0.237199
0.831883	2.741094	0.456097	1.38108	0.297707	1.464465	0.93824	3.69498	0.39977
0.318569	1.208247	0.635742	2.401315	0.370578	1.943723	0.441244	1.935393	0.182414
0.348284	1.656544	0.543907	1.744207	0.250959	1.44288	0.16069	1.688995	0.198162
0.540592	2.095916	0.47846	1.945176	0.248907	1.714967	0.297282	2.020455	0.80925
0.653129	2.176725	0.818891	2.647496	0.908741	2.825715	0.319917	2.166776	0.531609
0.548278	1.426967	0.901653	2.22954	0.265182	1.872034	0.252797	2.26816	0.393168
0.762849	0.937659	0.221379	1.438189	0.640243	2.222587	0.297261	2.244915	0.173304
0.402422	1.291894	0.367052	1.491177	0.308149	1.951404	0.252109	1.819496	0.565258
0.50647	2.134916	0.370041	1.492858	0.320835	1.965361	0.243873	2.002462	0.361996
0.413938	1.062055	0.348691	2.283323	0.419563	2.48702	0.196877	1.81421	0.127413
0.50082	1.600048	0.473631	1.264643	0.204129	1.674292	0.667763	2.999982	0.215695
0.293799	0.530419	0.592466	2.017267	0.339544	2.296868	0.257968	1.973864	0.31779
0.646607	1.463787	0.28293	0.929039	0.862383	2.907708	0.247115	2.127467	0.432361
0.709244	1.778498	0.423535	1.53011	0.649175	2.935192	0.290817	2.583463	0.13528
0.677259	1.282983	0.453863	1.313512	0.347688	1.866318	0.299	2.356142	0.19546
0.708783	2.5691	0.371745	1.599377	0.741961	3.022993	0.187314	1.96802	0.583599
0.324645	0.996542	0.638466	2.264974	0.397612	2.097989	0.360255	2.578786	0.757166
0.965344	2.806692	0.359189	1.822832	0.335223	2.137411	0.317345	1.858346	0.211904
0.496357	1.63598	0.513447	1.729599	0.416542	2.160413	0.359258	2.52627	0.274603
0.785077	2.841159	0.426866	1.200368	0.215621	1.525277	0.465444	2.574267	0.526157
0.933255	2.666143	0.39595	2.1734	0.284459	1.787199	0.349761	2.096835	0.212759
0.838689	2.251624	0.881029	2.113642	0.321716	1.922268	0.176677	1.578123	0.229592
0.557911	1.562795	0.458888	1.325398	0.272807	1.877203	0.809666	3.28829	0.28087
0.82163	2.296332	0.954014	2.78607	0.262874	1.90728	0.300432	2.205277	0.222375
0.527891	1.964877	0.391335	1.740672	0.519094	2.203835	0.273552	1.960145	0.432495
0.829928	2.211986	0.668602	2.021475	0.338161	1.89692	0.331343	2.506019	0.14835
0.74169	1.330163	0.813726	2.344096	0.694268	2.755873	0.11014	1.35394	0.340853
0.478723	1.087559	0.284205	0.837196	0.255101	1.667861	0.370386	2.42587	0.305883
0.47346	1.435228	0.688493	1.665691	0.249226	1.543766	0.273338	2.167531	0.380939
0.335033	1.252252	0.257295	1.568135	0.747509	2.548746	0.626189	2.618747	0.497393

	178		316		562		1000		1778	
	n/a		n/a		n/a		n/a		n/a	
$\log K_{\text{best}}$	[best]	$\log K_{\text{best}}$	[best]	$\log K_{\text{best}}$	[best]	$\log K_{\text{best}}$	[best]	$\log K_{\text{best}}$	[best]	$\log K_{\text{best}}$
2.040305	0.345184	2.765961	0.113039	2.495966	0.123911	3.001054	0.082634	2.962282	0.05598	3.141208
2.641458	0.162204	2.677717	0.122695	2.537079	0.25383	3.485851	0.169198	3.300006	0.08795	3.264227
2.207025	0.154422	2.488776	0.463364	3.632731	0.169202	2.99025	0.092054	2.981998	0.066898	3.06802
2.272695	0.415406	2.918387	0.187528	2.851692	0.105075	2.889092	0.125203	3.119219	0.048982	2.947706
2.197021	0.229725	2.823435	0.277281	2.905323	0.055487	2.662053	0.072726	2.890864	0.143648	3.522509
2.547278	0.576928	3.468231	0.341862	3.219169	0.12398	2.76	0.305173	3.74588	0.049245	3.014482
2.306446	0.19127	2.412132	0.150913	2.742043	0.084218	2.7625	0.367034	3.892691	0.121858	3.548162
3.173296	0.371334	3.135231	0.105966	2.533161	0.223559	3.238868	0.324583	3.634159	0.433067	4.22186
2.793047	0.175852	2.605854	0.355963	3.086707	0.143679	2.913588	0.074168	2.919941	0.062926	3.075665
2.649109	0.182615	2.962879	0.368222	3.244448	0.133949	3.069037	0.124088	3.126686	0.383765	4.238277
2.579837	0.287519	2.667176	0.258186	3.005336	0.083325	2.771341	0.098707	3.231366	0.082533	3.219792
2.486368	0.338701	2.862717	0.104721	2.390723	0.203604	3.177414	0.165117	3.264058	0.459608	4.227625
2.716268	0.095852	2.224933	0.09863	2.433424	0.104313	2.697757	0.211922	3.423159	0.214004	3.699399
2.827739	0.167678	2.371629	0.685847	4.000726	0.244567	3.159902	0.084175	2.797381	0.046102	3.039446
2.574239	0.125379	2.423878	0.116275	2.465646	0.259928	3.295824	0.176759	3.463722	0.063852	3.128937
2.225275	0.299293	2.771228	0.124774	2.861263	0.173413	3.088079	0.080916	2.945676	0.135358	3.712233
2.281321	0.271539	2.790942	0.304551	2.926263	0.152837	3.09613	0.119853	3.136942	0.248902	3.797627
2.439787	0.091932	2.068045	0.266301	3.075996	0.078859	2.677664	0.062216	2.833195	0.041176	2.835574
2.469684	0.286488	2.751199	0.283228	3.210209	0.072804	2.687847	0.151942	3.432525	0.338054	3.980996
2.327751	0.119759	2.251331	0.176526	2.881892	0.157205	2.966166	0.072347	2.993802	0.059851	3.105512
2.14574	0.245041	2.799756	0.221121	2.893221	0.069376	2.61637	0.187639	3.611652	0.373835	4.191874
2.3066	0.156725	2.620396	0.461296	3.62179	0.098231	2.572685	0.065215	2.792441	0.080098	3.153324
2.395569	0.225519	2.732968	0.157543	2.654056	0.328016	3.395404	0.081901	2.99521	0.368733	4.078208
2.744903	0.238973	2.848605	0.137658	2.674188	0.104921	2.800975	0.146814	3.324111	0.079865	3.196503
2.378747	0.222316	2.69641	0.090417	2.451637	0.212602	3.220508	0.073661	2.961629	0.056061	3.141608
2.349146	0.42143	3.011729	0.127482	2.657107	0.289804	3.50398	0.390573	3.903201	0.046529	2.971835
2.035078	0.123943	2.346307	0.133071	2.631318	0.078588	2.779745	0.114658	3.112322	0.170721	3.626898
3.151739	0.313107	2.759853	0.268814	3.047547	0.221001	3.33875	0.253696	3.571315	0.102896	3.336037
2.453086	0.224671	2.695398	0.416877	3.197019	0.0459	2.471825	0.090375	3.04493	0.087679	3.271211
2.942335	0.11993	2.158407	0.177978	2.972264	0.157985	3.090949	0.102634	3.114536	0.197958	3.799258
2.385877	0.120668	2.344436	0.159427	2.717679	0.399686	3.541654	0.136244	3.413006	0.128415	3.445919
2.177869	0.306797	2.754674	0.184253	2.728301	0.38147	3.623605	0.099211	3.179089	0.090691	3.249793
2.577809	0.271952	2.733623	0.14759	2.788327	0.160871	3.099981	0.045535	2.677852	0.048456	2.992002
1.885098	0.220462	2.689447	0.176972	2.802527	0.145353	3.196779	0.041496	2.667211	0.096774	3.230254
2.599677	0.457312	3.156625	0.154503	2.684704	0.162715	3.147923	0.194129	3.491399	0.052454	3.102933
2.096506	0.203238	2.734591	0.125314	2.634925	0.301501	3.529645	0.069111	2.859411	0.103882	3.406167
3.405923	0.196677	2.547784	0.106789	2.499205	0.076582	2.649195	0.212782	3.526977	0.114304	3.547073
2.001259	0.55714	3.42794	0.081438	2.409572	0.10672	2.693098	0.074407	2.92232	0.141281	3.449987
2.384622	0.162334	2.537898	0.104858	2.420759	0.079643	2.606065	0.21983	3.530128	0.126031	3.554588
1.812357	0.193043	2.730416	0.195188	2.97026	0.054289	2.667499	0.165512	3.402691	0.150036	3.582157
2.245416	0.090807	2.217091	0.109015	2.518901	0.146259	2.958295	0.061682	2.89194	0.240702	3.94438
2.312376	0.416953	2.913388	0.107318	2.710159	0.091008	2.830168	0.077854	2.869577	0.08988	3.45119
2.568758	0.148369	2.63186	0.15912	2.945873	0.204282	3.262436	0.094779	3.082199	0.040701	2.921481
2.293496	0.238004	2.582863	0.56564	3.691556	0.077199	2.688213	0.061004	2.886881	0.664454	4.71498
2.367723	0.290444	2.986626	0.080916	2.292562	0.168152	3.031822	0.157338	3.45428	0.106716	3.399923
2.193778	0.340381	2.637445	0.195001	3.014964	0.102003	2.839462	0.145956	3.356934	0.041752	2.864343
2.594986	0.222422	2.951935	0.185946	2.937673	0.147119	3.026241	0.481212	4.014196	0.054817	3.075672

2.098564	0.228266	2.758576	0.169278	2.832558	0.186886	3.234533	0.232499	3.577677	0.109348	3.40193
2.531139	0.339613	2.708577	0.124471	2.717692	0.124017	3.051124	0.04806	2.733125	0.146926	3.629459
2.14775	0.141739	2.538022	0.305372	3.142569	0.104172	2.874885	0.03022	2.386275	0.078718	3.18458
2.938407	0.118317	2.325702	0.502131	3.650502	0.057425	2.454219	0.214711	3.583049	0.119799	3.5094
2.43799	0.302837	2.996839	0.197182	2.974702	0.253632	3.13025	0.460889	4.198453	0.039332	2.848435
2.256464	0.406768	2.955936	0.390041	3.188039	0.431583	3.797274	0.199973	3.406271	0.104661	3.438049
2.548117	0.171322	2.54246	0.44825	3.48158	0.064893	2.472071	0.05971	2.747966	0.167356	3.618449
2.570561	0.072413	2.019148	0.114922	2.906394	0.216811	3.173371	0.27699	3.714804	0.049089	3.059705
1.743365	0.525373	3.194738	0.407142	3.34804	0.240638	3.389084	0.140551	3.263999	0.045522	3.032747
2.889448	0.244619	2.891579	0.283818	3.041406	0.170299	3.161835	0.062559	2.861067	0.426902	4.237035
2.779141	0.180781	2.421229	0.274121	3.045414	0.546502	3.926219	0.128058	3.129106	0.06081	3.12385
2.639688	0.734896	3.569165	0.13666	2.584701	0.159474	2.954223	0.066083	2.915142	0.11071	3.44921
2.853225	0.412663	3.104365	0.157408	2.707517	0.098348	2.753555	0.049502	2.709436	0.131111	3.582524
3.041498	0.303819	2.99769	0.127582	2.802741	0.079771	2.762218	0.120247	3.295381	0.146821	3.626435
2.214456	0.157782	2.515608	0.23407	3.087932	0.07724	2.673432	0.302872	3.654871	0.065825	3.081976
2.524011	0.403555	3.072046	0.439352	3.601203	0.080553	2.580855	0.149039	3.23624	0.082112	3.265177
2.826236	0.154826	2.628879	0.18383	2.611974	0.333502	3.39596	0.082035	3.031152	0.072268	3.139305
2.143329	0.291604	2.804064	0.526179	3.737296	0.092944	2.83236	0.123798	3.291445	0.039598	2.95055
2.602018	0.145799	2.363727	0.230165	2.957742	0.135895	3.131102	0.212186	3.409596	0.074089	3.179376
1.945255	0.219628	2.523502	0.619813	3.821766	0.13629	3.013763	0.073878	2.967821	0.109034	3.405692
2.990054	0.277263	3.075365	0.442179	3.592299	0.161265	2.945793	0.064489	2.782087	0.08118	3.366542
2.532653	0.385288	2.85744	0.225774	2.777297	0.214035	3.314804	0.050855	2.7052	0.125305	3.493308
2.320389	0.193684	2.483763	0.124497	2.692969	0.413528	3.542222	0.134678	3.371389	0.10626	3.428708
2.588791	0.126083	2.185386	0.359014	3.353952	0.077952	2.616791	0.263868	3.681626	0.325661	4.209352
2.204854	0.121974	2.342784	0.16268	2.669994	0.177164	3.079955	0.733413	4.417791	0.226407	3.812194
2.061444	0.382103	2.891911	0.159993	2.856283	0.575362	3.834723	0.08385	3.104975	0.059471	3.109849
3.500824	0.2186	2.674454	0.20154	2.813622	0.320126	3.373159	0.127129	3.24156	0.080797	3.22013
2.858401	0.206749	2.433236	0.264043	3.009884	0.177348	2.970821	0.181676	3.449434	0.146643	3.65259
2.79618	0.217323	2.785624	0.093294	2.26039	0.151087	3.126763	0.108118	3.172938	0.174786	3.723263
1.947052	0.190922	2.428919	0.121427	2.595451	0.071122	2.758081	0.087934	2.948292	0.130296	3.476366
3.108653	0.317863	2.598759	0.174526	2.804309	0.233307	3.294746	0.155015	3.315033	0.228298	3.945337
3.123485	0.137413	2.285485	0.11753	2.381527	0.134417	3.001651	0.142025	3.156586	0.112478	3.551879
1.932442	0.475681	3.174102	0.099696	2.547473	0.125302	2.959651	0.129742	3.339549	0.066807	3.103241
1.94488	0.668733	3.489834	0.193875	2.926039	0.645847	4.258977	0.467574	3.959101	0.027324	2.729959
2.629255	0.575486	3.537721	0.134272	2.578192	0.195629	3.129148	0.215305	3.457378	0.129619	3.584182
2.906025	0.132476	2.404966	0.125995	2.636911	0.100598	2.993824	0.123094	3.109683	0.053866	3.022004
2.080823	0.187146	2.501275	0.197006	3.062284	0.060822	2.625967	0.137624	3.187923	0.063876	3.089779
2.153474	0.227509	2.591976	0.247206	3.519871	0.098403	2.705074	0.119303	3.147993	0.283369	3.828958
3.07474	0.214877	2.790118	0.434656	3.414039	0.273134	3.526388	0.185848	3.416612	0.067109	3.103749
3.889005	0.248817	2.682451	0.303092	3.047797	0.202782	3.076964	0.094502	3.078061	0.21749	3.680412
2.359995	0.487673	3.339091	0.181571	2.908497	0.633109	4.090042	0.074159	2.929733	0.081415	3.152522
2.59702	0.879332	4.173094	0.446828	3.469128	0.072099	2.690869	0.117975	3.125305	0.112059	3.497442
2.775291	0.286838	2.836181	0.118799	2.487568	0.253177	3.277072	0.210765	3.464168	0.082009	3.273821
2.284501	0.136949	2.261897	0.196262	2.859212	0.269661	3.273369	0.232273	3.650189	0.074132	3.318162
2.554213	0.7269	3.457537	0.166932	2.498905	0.133104	2.907296	0.13271	3.326443	0.046566	2.985704
2.315182	0.453122	3.375785	0.168274	2.762336	0.135218	3.048477	0.097351	3.069663	0.098251	3.328427
2.512598	0.134248	2.360688	0.155941	2.745849	0.119324	2.884266	0.116164	3.174342	0.07906	3.237961
2.454927	0.658693	3.647446	0.379103	3.685424	0.155547	2.948485	0.230785	3.408616	0.034894	2.818886
1.86989	0.435393	3.151569	0.089761	2.502322	0.174345	2.996479	0.112017	3.301985	0.358406	4.183732
2.754469	0.36552	3.026429	0.145166	2.835401	0.125996	2.851749	0.081595	3.037277	0.432293	4.172465
2.538244	0.275816	2.862936	0.120263	2.526225	0.08418	2.708403	0.356779	3.803873	0.071559	3.200148
2.764751	0.25804	2.593894	0.056156	2.140738	0.318604	3.396504	0.164846	3.397346	0.071777	3.23885
2.649211	0.891296	4.181882	0.383442	3.272397	0.082784	2.622309	0.199222	3.351074	0.105549	3.350981

3162		5623		10000		17783		31623		56234	
n/a		n/a		2.296304		2.506652		2.699472		2.892291	
[best]	logK _{best}	[best]	logK _{best}	[best]	logK _{best}	[best]	logK _{best}	[best]	logK _{best}	[best]	logK _{best}
0.095328	3.612895	0.197765	4.375848	0.34139	4.839549	0.04788	4.030768	0.018162	3.869622	0.061956	
0.286822	4.309343	0.158831	4.138276	0.046872	3.813584	0.025693	3.868069	0.024628	4.103189	0.015203	
0.108297	3.700986	0.019059	3.149942	0.031594	3.547792	0.023639	3.759002	0.028893	3.882358	0.011254	
0.051441	3.295542	0.052003	3.625762	0.073807	4.08453	0.033249	3.836367	0.010729	3.541181	0.043178	
0.066153	3.408093	0.044768	3.47423	0.038216	3.746679	0.019328	3.708716	0.080919	4.620688	0.031721	
0.122165	3.710019	0.029423	3.262431	0.051965	3.818841	0.0309	3.793537	0.032749	4.042659	0.012362	
0.078985	3.526173	0.057716	3.643386	0.061171	3.822339	0.025925	3.774066	0.047555	4.260807	0.046341	
0.061525	3.418017	0.045767	3.492829	0.063292	3.874136	0.019347	3.796571	0.083237	4.502212	0.014652	
0.280582	4.233046	0.066312	3.741944	0.129535	4.28552	0.252076	4.829834	0.072508	4.431077	0.048674	
0.117159	3.744243	0.092658	3.885712	0.029097	3.667045	0.02767	3.685488	0.026175	4.030727	0.038553	
0.052488	3.345545	0.049024	3.58442	0.038745	3.830768	0.090756	4.344759	0.038705	4.127153	0.063258	
0.091323	3.656418	0.143177	4.145418	0.033502	3.651481	0.070689	4.121017	0.017431	3.773656	0.027962	
0.098313	3.667187	0.066626	3.76714	0.29352	4.710565	0.025875	3.829276	0.019534	3.947738	0.028488	
0.044956	3.263529	0.284557	4.492384	0.06184	3.920302	0.070385	4.217882	0.075577	4.595208	0.061405	
0.077635	3.567702	0.058849	3.666777	0.073161	4.014548	0.035367	3.870248	0.024587	4.028675	0.048901	
0.049657	3.365556	0.04415	3.524039	0.021561	3.447463	0.081126	4.276571	0.030622	3.994346	0.026421	
0.068983	3.477637	0.050191	3.645126	0.109486	4.247939	0.066009	4.146595	0.075895	4.542883	0.029382	
0.144505	3.90053	0.038904	3.431146	0.05594	3.984323	0.018071	3.669018	0.057632	4.387331	0.023758	
0.057522	3.378891	0.270296	4.4147	0.115132	4.127599	0.067631	4.221163	0.021152	3.996833	0.027662	
0.086555	3.537585	0.034791	3.487767	0.11771	4.291168	0.021497	3.654285	0.019266	3.850583	0.007783	
0.053667	3.336631	0.128069	4.091754	0.043642	3.80759	0.075913	4.305524	0.017187	4.003639	0.030039	
0.090968	3.623004	0.024661	3.178664	0.097064	4.206485	0.037445	3.912911	0.033477	4.121614	0.024443	
0.123156	3.678796	0.049883	3.584613	0.224403	4.575219	0.030552	3.682435	0.056678	4.330244	0.016712	
0.062418	3.356791	0.0198	3.087948	0.030143	3.479596	0.027867	3.80718	0.031329	4.083823	0.015418	
0.093559	3.701575	0.045687	3.520177	0.03102	3.669419	0.028698	3.777945	0.015264	3.754804	0.051076	
0.047974	3.275383	0.081179	3.873858	0.038161	3.597402	0.036756	4.017904	0.0727	4.499376	0.02133	
0.051331	3.336245	0.053249	3.614684	0.033041	3.711373	0.062741	4.251608	0.050714	4.340821	0.025452	
0.217796	3.970385	0.031763	3.264572	0.05987	3.915944	0.018138	3.641993	0.097762	4.599432	0.013099	
0.040236	3.176454	0.268471	4.442927	0.04505	3.751836	0.034926	3.896954	0.114768	4.916302	0.024298	
0.151723	3.83027	0.065916	3.730159	0.03724	3.860345	0.063603	4.204786	0.016495	3.850013	0.049737	
0.068019	3.423433	0.08985	3.901027	0.036497	3.757433	0.030835	3.882145	0.058698	4.497385	0.01852	
0.039139	3.24995	0.082808	3.815317	0.083789	4.001729	0.037652	3.933603	0.019886	4.013	0.022263	
0.092816	3.727316	0.047954	3.545605	0.055817	3.947359	0.050704	3.972006	0.03849	4.12884	0.021229	
0.085906	3.522354	0.15574	4.059544	0.13386	4.336026	0.061653	4.17232	0.0422	4.288472	0.020422	
0.027783	3.065514	0.022534	3.149157	0.069881	3.927558	0.093151	4.350921	0.022032	3.920907	0.019794	
0.391601	4.479289	0.090428	3.832952	0.076026	4.032718	0.014426	3.53947	0.037723	4.336782	0.009066	
0.033317	3.116909	0.096567	3.907644	0.053263	3.939182	0.013202	3.402812	0.025205	3.925269	0.015028	
0.075777	3.519383	0.081194	3.835898	0.118671	4.30851	0.081894	4.296955	0.008857	3.567788	0.013997	
0.10338	3.653998	0.065657	3.743982	0.044811	3.757253	0.008952	3.456029	0.04142	4.148558	0.026001	
0.074813	3.455565	0.159259	4.14384	0.018587	3.410147	0.030257	3.911118	0.014981	3.765896	0.008798	
0.038788	3.151119	0.155042	4.105956	0.022049	3.514222	0.050295	4.242783	0.049568	4.323373	0.013154	
0.027875	3.037918	0.352517	4.574039	0.051517	3.857834	0.03947	3.896605	0.018599	3.952527	0.032586	
0.075278	3.423818	0.092627	3.858633	0.018012	3.252228	0.123332	4.414323	0.017455	3.834037	0.025725	
0.101575	3.655355	0.035038	3.378064	0.068378	4.013429	0.032389	3.951458	0.06937	4.493099	0.022466	
0.235832	4.188008	0.046162	3.493878	0.049501	3.857268	0.016371	3.653994	0.028656	4.025323	0.075066	
0.070863	3.502681	0.135912	4.091971	0.034126	3.694682	0.051296	4.132138	0.09918	4.674841	0.045303	
0.129548	3.863232	0.03533	3.424516	0.036743	3.711701	0.082981	4.311534	0.026016	3.941337	0.022008	

0.029924	3.024932	0.033835	3.426047	0.042711	3.74886	0.119947	4.498122	0.018811	3.978409	0.029218
0.067478	3.373986	0.047782	3.555774	0.046008	3.736098	0.016354	3.702296	0.022827	4.004768	0.017782
0.184098	3.993328	0.147213	4.079604	0.037714	3.729378	0.031438	3.819068	0.013144	3.872279	0.024664
0.054501	3.450917	0.057605	3.603985	0.054807	3.919084	0.03762	3.946585	0.191823	4.960045	0.015028
0.061762	3.335831	0.028778	3.282582	0.086782	4.067446	0.041939	4.093276	0.01769	3.760402	0.010939
0.107359	3.666476	0.054107	3.606423	0.105952	4.444404	0.034171	3.999271	0.061788	4.37349	0.039869
0.045766	3.253189	0.039714	3.482881	0.049106	3.869479	0.031529	3.827994	0.048259	4.267283	0.022569
0.029246	3.027793	0.050122	3.540168	0.046223	3.861592	0.041344	4.042715	0.029337	4.102116	0.035057
0.036202	3.100814	0.203535	4.323946	0.126844	4.262868	0.056247	3.978644	0.018264	3.782983	0.022546
0.069397	3.40769	0.091219	3.922086	0.033652	3.624962	0.023442	3.814003	0.040263	4.116854	0.045891
0.043485	3.253078	0.040983	3.479779	0.053295	3.720038	0.015954	3.648194	0.024701	3.892654	0.023468
0.123248	3.744616	0.084036	3.852808	0.043134	3.771051	0.024145	3.688307	0.036377	3.934874	0.012849
0.062428	3.430668	0.050413	3.56799	0.037686	3.734177	0.018132	3.707161	0.020459	3.945166	0.02868
0.181618	3.919504	0.067701	3.816309	0.075513	4.072872	0.095471	4.36665	0.015954	3.762374	0.048244
0.076228	3.414001	0.05301	3.573519	0.029222	3.576692	0.032354	3.826493	0.021884	4.06716	0.016556
0.093651	3.635792	0.073091	3.774212	0.047322	3.7743	0.048799	4.165295	0.019536	3.93135	0.016999
0.068179	3.417843	0.040184	3.571383	0.310938	4.821181	0.07806	4.182408	0.019072	4.000757	0.017343
0.048429	3.323044	0.148066	4.221615	0.02925	3.586972	0.041951	3.941375	0.01618	3.941848	0.013001
0.024348	2.935031	0.074963	3.782013	0.090613	4.070227	0.040398	3.839399	0.020266	3.991341	0.064892
0.2136	4.021502	0.046963	3.542744	0.025863	3.577084	0.027368	3.788114	0.012197	3.607506	0.010922
0.140104	3.798186	0.043307	3.511938	0.047702	3.91132	0.02808	3.763518	0.023379	3.898286	0.023659
0.044968	3.27798	0.036102	3.455489	0.080637	3.951968	0.025006	3.667028	0.06469	4.342753	0.036877
0.049638	3.224673	0.033863	3.400511	0.025342	3.490728	0.056631	4.131573	0.088413	4.589434	0.133957
0.103785	3.676358	0.053521	3.655967	0.028903	3.401976	0.29137	4.974219	0.023082	3.868862	0.00806
0.064336	3.430701	0.057174	3.614731	0.047097	3.75092	0.041601	4.036883	0.017857	3.997749	0.019039
0.056303	3.32794	0.021943	3.212017	0.073049	3.917522	0.023849	3.789318	0.028319	4.035488	0.025726
0.086446	3.715185	0.296903	4.389075	0.050606	3.903178	0.06392	4.234596	0.033683	4.215151	0.045267
0.096731	3.674368	0.102637	3.885846	0.024238	3.518401	0.038338	3.865315	0.041538	4.21499	0.011293
0.082704	3.611744	0.10089	3.894748	0.027254	3.499427	0.026016	3.756986	0.025128	4.121726	0.0288
0.095685	3.619371	0.2208	4.361651	0.337739	4.754634	0.013354	3.658013	0.028028	4.104663	0.012528
0.03517	3.130396	0.044217	3.525791	0.047955	3.909212	0.12521	4.452954	0.044386	4.229609	0.027602
0.430382	4.517105	0.030205	3.328002	0.042087	3.690312	0.025661	3.877021	0.042249	4.186169	0.047509
0.104686	3.703287	0.028606	3.346838	0.051926	3.770659	0.032124	3.909484	0.022385	3.863557	0.045673
0.131058	3.724412	0.037159	3.530413	0.09236	4.212981	0.02704	3.793747	0.033892	4.160491	0.010824
0.057534	3.352506	0.061549	3.677191	0.029308	3.695072	0.018756	3.59091	0.022576	4.093755	0.077772
0.048094	3.267916	0.052037	3.623385	0.025868	3.410331	0.035037	3.946987	0.017825	3.81103	0.016577
0.074603	3.459322	0.206024	4.339496	0.067886	3.937249	0.077044	4.300959	0.044952	4.178565	0.012676
0.113133	3.754159	0.06357	3.687386	0.044457	3.79328	0.10349	4.368928	0.022271	3.918807	0.027934
0.147615	3.885744	0.084266	3.853012	0.046278	3.711615	0.025536	3.635749	0.044372	4.171516	0.019375
0.111853	3.720314	0.041506	3.509855	0.026457	3.576126	0.026433	3.839109	0.011587	3.711553	0.019161
0.080328	3.607159	0.084197	3.847435	0.071413	3.991444	0.0227	3.615826	0.041155	4.232845	0.015195
0.033459	3.075439	0.063871	3.705973	0.322644	4.770369	0.027596	3.924332	0.117541	4.720078	0.007723
0.133822	3.822838	0.062918	3.649794	0.031028	3.605942	0.025243	3.80161	0.020284	3.922474	0.013974
0.124801	3.700212	0.094123	3.867755	0.049099	3.830402	0.021231	3.768483	0.12029	4.697585	0.022564
0.096982	3.605994	0.047062	3.553918	0.04127	3.72735	0.035155	3.910355	0.054979	4.339909	0.021382
0.176585	3.999047	0.038139	3.514414	0.029279	3.711165	0.077939	4.083519	0.156199	4.867806	0.079194
0.066192	3.373399	0.033784	3.358464	0.1705	4.407906	0.031205	3.883324	0.067514	4.416026	0.075822
0.048624	3.300236	0.04842	3.53977	0.088557	4.188489	0.047454	4.117953	0.039081	4.208577	0.017015
0.153588	4.001917	0.052883	3.615537	0.107424	4.177293	0.025271	3.728677	0.033126	4.214544	0.008404
0.13837	3.808205	0.067652	3.769317	0.090895	3.977966	0.119774	4.423487	0.040175	4.249271	0.017985
0.109745	3.654921	0.129089	4.041385	0.127064	4.194351	0.027743	3.711836	0.008769	3.534684	0.019464
0.07939	3.495177	0.071451	3.70752	0.0356	3.64645	0.042653	3.895227	0.026037	4.080099	0.044823
0.110145	3.726369	0.149899	4.130914	0.136661	4.280559	0.015157	3.52386	0.018715	3.82536	0.025795

	100000		177828		316228		562341		1000000	
	2.997465		3.207814		3.400633		3.505807		3.698627	
$\log K_{\text{best}}$	[best]	$\log K_{\text{best}}$	[best]	$\log K_{\text{best}}$	[best]	$\log K_{\text{best}}$	[best]	$\log K_{\text{best}}$	[best]	$\log K_{\text{best}}$
4.695233	0.032996	4.622062	0.015998	4.561791	0.0147	4.649575	0.005568	4.688429	0.005346	4.6807
4.185306	0.014566	4.515906	0.004366	4.231361	0.01151	4.408287	0.019694	5.277926	0.006464	5.319774
3.93758	0.010575	4.135139	0.005203	4.362713	0.011749	4.788737	0.004452	4.599002	0.003115	4.610603
4.441154	0.020989	4.384695	0.009328	4.46632	0.007461	4.354926	0.020653	5.021497	0.00716	4.590865
4.486037	0.041689	4.866738	0.006548	4.373508	0.018363	4.948741	0.026709	5.170431	0.003091	4.916961
3.925731	0.009029	4.204346	0.017215	4.623931	0.006426	4.408912	0.001909	4.506688	0.005447	4.667306
4.361924	0.016662	4.211905	0.013136	4.542896	0.008885	4.806172	0.012769	4.845611	0.001846	4.606703
4.147432	0.02119	4.11893	0.007981	4.399102	0.006844	4.442777	0.021501	4.967682	0.003406	4.604827
4.531042	0.044259	4.685534	0.03125	4.602823	0.007688	4.324512	0.005899	4.572661	0.006738	4.840215
4.350107	0.024598	4.456656	0.032341	4.751915	0.124718	5.500108	0.002093	4.304415	0.00996	4.763182
4.548865	0.02145	4.278736	0.0144	4.320866	0.005952	4.484884	0.00654	4.642821	0.003234	4.569427
4.195873	0.033217	4.653255	0.008517	4.269121	0.011665	4.667666	0.016753	5.004808	0.005735	4.897983
4.251452	0.030854	4.53673	0.007766	4.530253	0.096334	5.658894	0.004119	4.619923	0.00178	4.966236
4.46724	0.022377	4.441233	0.009639	4.27171	0.01297	4.715644	0.003305	4.519251	0.002982	4.700218
4.492627	0.063662	4.879301	0.013767	4.358632	0.008163	4.657225	0.008106	5.034016	0.004544	4.656755
4.125285	0.056431	4.815266	0.005141	4.145733	0.006715	4.340348	0.001642	4.58715	0.005356	4.825263
4.548194	0.0092	4.303101	0.00512	4.332603	0.014227	4.752438	0.003375	4.782627	0.011979	5.059963
4.21994	0.014667	4.493208	0.171306	5.454837	0.003604	4.495497	0.006263	4.319335	0.002015	4.521764
4.271065	0.013051	4.245059	0.038483	4.879913	0.025768	5.219255	0.004893	4.681941	0.012439	4.985186
3.898178	0.029202	4.715704	0.009962	4.414525	0.012918	4.705716	0.001069	4.205025	0.005718	4.748073
4.421076	0.01089	4.223258	0.010082	4.245453	0.021178	5.040967	0.003167	4.511778	0.005335	4.772859
4.396891	0.021797	4.597667	0.028219	4.950173	0.015578	4.628354	0.005613	4.659606	0.002087	4.632938
4.123733	0.038029	4.660772	0.049592	5.33348	0.020187	4.785582	0.005579	4.599015	0.006488	4.703724
4.240889	0.028759	4.586862	0.008725	4.249342	0.020411	4.823339	0.003792	4.338742	0.010876	4.968942
4.508969	0.032267	4.865727	0.014616	4.803317	0.015415	4.804279	0.015171	4.920432	0.001591	4.811815
4.049186	0.013725	4.340024	0.044644	4.802343	0.012792	4.655544	0.003926	4.567719	0.004952	4.675758
4.367462	0.046352	4.945038	0.016135	4.435944	0.013235	4.54357	0.004978	4.428151	0.007099	4.823862
3.854617	0.017754	4.445125	0.010455	4.291892	0.008827	4.562498	0.018775	4.95922	0.004291	4.770284
4.083899	0.015994	4.313875	0.052484	4.819556	0.013081	4.814217	0.010082	4.742095	0.009986	5.063618
4.395665	0.025282	4.497608	0.024395	4.622926	0.017997	4.856308	0.010483	5.009582	0.005821	4.677882
4.126983	0.030771	4.496047	0.02731	4.694983	0.007387	4.420141	0.009854	4.791513	0.003061	4.622936
4.263901	0.015994	4.185574	0.005732	4.249213	0.00682	4.506305	0.009649	4.819362	0.004006	4.940644
4.350661	0.005613	3.921566	0.006699	4.326929	0.016587	4.585841	0.013601	4.9952	0.002568	4.608086
4.238286	0.010802	4.36482	0.041476	4.877058	0.00239	4.335113	0.029958	5.071165	0.009312	4.807966
4.283019	0.012077	4.188015	0.009677	4.368128	0.013372	4.734155	0.087932	5.935153	0.006441	4.930654
3.848831	0.022298	4.507497	0.015629	4.374266	0.07201	5.497276	0.002033	4.413803	0.006921	4.767973
4.172843	0.033339	4.646911	0.017619	4.458731	0.007548	4.537235	0.005106	4.693982	0.004411	4.664031
4.082624	0.012974	4.129363	0.013683	4.561286	0.020679	4.687417	0.00607	4.599277	0.007318	4.632492
4.222834	0.008511	4.010138	0.006006	4.410038	0.012502	4.722398	0.00313	4.410839	0.007277	4.789378
4.050629	0.016598	4.295382	0.020219	4.54298	0.015277	4.595934	0.012323	4.820827	0.007266	4.906945
4.207531	0.080947	4.834979	0.007966	4.128727	0.01454	4.956079	0.028358	5.19214	0.001461	4.819884
4.400144	0.008632	4.13155	0.00441	4.25122	0.014476	4.710967	0.004105	4.357257	0.002853	4.646543
4.248117	0.010074	4.247285	0.013036	4.345501	0.013136	4.953137	0.004844	4.616134	0.010613	4.991718
4.359413	0.046257	4.801324	0.021394	4.735295	0.017057	4.695113	0.004095	4.452836	0.006467	4.877716
4.65834	0.021492	4.593047	0.010765	4.618554	0.005735	4.504885	0.006119	4.68412	0.004318	4.963325
4.729839	0.015699	4.459165	0.004959	4.129403	0.015543	4.712621	0.014296	4.60425	0.004128	4.863948
4.235364	0.028102	4.482729	0.007351	4.392912	0.026878	4.859323	0.005969	4.60316	0.002605	4.521845

4.208242	0.09385	5.040779	0.006712	4.20728	0.005517	4.320538	0.002482	4.529161	0.002463	4.611307
4.460515	0.010451	4.085043	0.009311	4.423304	0.00634	4.534589	0.008184	4.559046	0.005183	4.80378
4.263409	0.031447	4.54217	0.009965	4.226339	0.008113	4.757566	0.016201	4.884753	0.003394	4.672343
4.106982	0.021694	4.411061	0.021304	4.859323	0.003298	4.198516	0.027569	5.082704	0.006791	4.976233
3.862101	0.011809	4.253728	0.018076	4.815442	0.012422	4.541176	0.010556	4.78241	0.004413	4.599329
4.444827	0.058501	4.88232	0.019633	4.652459	0.014699	4.582965	0.010891	5.033573	0.002552	4.590471
4.208665	0.013846	4.267234	0.027669	5.114984	0.008602	4.533471	0.006317	4.681145	0.004381	4.688698
4.417108	0.007445	3.97133	0.01451	4.567432	0.027106	5.029597	0.003425	4.35941	0.00262	4.725395
4.142738	0.01421	4.073035	0.148901	5.407207	0.002745	4.546902	0.028829	5.203408	0.003048	4.780779
4.54909	0.016777	4.323382	0.015416	4.208487	0.016132	4.619454	0.006713	4.564171	0.001614	4.990733
4.275369	0.011858	4.370071	0.015245	4.42697	0.006588	4.49031	0.006245	4.771089	0.002883	4.507137
3.990301	0.033467	4.728269	0.002594	4.185479	0.020848	5.030569	0.01001	4.81469	0.002822	4.494893
4.285104	0.013547	4.426009	0.010976	4.388038	0.007337	4.408249	0.058816	5.363487	0.001573	4.93989
4.411795	0.055176	4.849867	0.053551	5.076236	0.00459	4.437488	0.005483	4.921067	0.016632	5.109
4.145002	0.011453	4.105825	0.015517	4.614766	0.007602	4.377751	0.002899	4.396371	0.006575	4.704176
4.140094	0.016065	4.580139	0.008892	4.090091	0.006983	4.489887	0.078484	5.853965	0.001162	4.482435
4.200852	0.017845	4.336009	0.02067	4.677225	0.014782	4.604011	0.017061	5.102355	0.006616	4.91445
4.0805	0.070565	4.920037	0.00545	4.412977	0.002928	4.325998	0.004609	4.540327	0.002554	4.874443
4.728865	0.015128	4.078335	0.009668	4.289726	0.006105	4.491172	0.020846	4.975191	0.005982	4.967317
3.969853	0.00534	3.910128	0.023776	4.622755	0.004877	4.583919	0.00979	4.499292	0.005891	4.742935
4.323284	0.297977	5.649196	0.007612	4.342542	0.014805	4.690265	0.019498	4.920312	0.00669	5.056844
4.418555	0.010975	4.217736	0.01012	4.706201	0.007033	4.546453	0.010873	4.810849	0.013461	5.333412
4.928249	0.013397	4.205089	0.013492	4.249139	0.0058	4.198361	0.006611	4.625778	0.003649	4.728237
3.795095	0.032839	4.733671	0.009846	4.261975	0.013376	5.113546	0.016116	5.170918	0.007805	4.643502
4.245891	0.009564	4.115488	0.011664	4.235688	0.007337	4.548262	0.008699	4.723275	0.008222	5.009617
4.121158	0.006065	4.006952	0.012934	4.372188	0.010522	4.482445	0.024427	5.130878	0.003624	4.792705
4.591795	0.008979	4.108769	0.01999	4.561857	0.024897	4.771094	0.029055	5.274035	0.004006	4.874236
3.90658	0.010106	4.056402	0.031599	4.79568	0.003666	4.241301	0.016271	5.008139	0.003375	4.588537
4.410607	0.014081	4.274728	0.011647	4.246503	0.008454	4.438123	0.009068	4.692575	0.005965	4.601839
3.92759	0.029617	4.40329	0.010553	4.645041	0.007623	4.640845	0.004689	4.702586	0.008271	4.924821
4.102614	0.023491	4.374364	0.014408	4.787625	0.016532	4.526595	0.008407	4.789207	0.007108	5.107869
4.557671	0.044847	4.615807	0.01018	4.281456	0.012226	4.91361	0.006391	4.948761	0.020081	5.256703
4.384534	0.109716	5.277762	0.020718	4.334774	0.014488	4.650301	0.010092	4.713308	0.004536	4.753312
3.924047	0.011627	4.012862	0.01134	4.228944	0.003967	4.185219	0.012689	4.909819	0.007488	4.937583
4.978069	0.008989	3.864102	0.006536	4.169237	0.01043	4.404062	0.004218	4.475305	0.001653	4.548899
4.020856	0.012706	4.517828	0.005954	4.064486	0.016442	4.442734	0.008459	4.835929	0.012588	5.059856
4.119099	0.013905	4.175323	0.008682	4.46144	0.004303	4.469342	0.017878	4.943147	0.005309	4.713454
4.258085	0.013944	4.407037	0.019741	4.570202	0.009842	4.50887	0.004181	4.613546	0.003265	4.624021
4.052303	0.013658	4.473286	0.027619	4.734289	0.016637	4.807799	0.003943	4.862648	0.016781	5.072749
4.173972	0.010371	3.887674	0.00603	4.273091	0.013017	4.829473	0.008323	4.661405	0.0061	5.0098
4.14121	0.012809	4.49021	0.019164	4.790238	0.004359	4.396096	0.005373	4.89229	0.007292	4.981166
3.836705	0.049593	4.750752	0.00401	4.309481	0.02438	4.845247	0.008338	4.475522	0.01788	5.117394
4.108281	0.020012	4.373582	0.004931	4.237237	0.016702	4.741583	0.005615	4.503565	0.001866	4.746955
4.553563	0.008601	4.018516	0.022506	4.570606	0.008633	4.647184	0.006007	4.549846	0.004374	4.768916
4.392535	0.016227	4.277215	0.021693	4.576926	0.01955	4.919979	0.015321	4.8497	0.002712	4.830088
4.917691	0.098011	5.260654	0.017906	4.45234	0.008927	4.507148	0.010872	4.82666	0.003367	4.921812
4.751211	0.023023	4.488535	0.006651	4.127606	0.006251	4.567508	0.02851	5.29507	0.008038	4.928503
4.049271	0.009532	4.089001	0.008486	4.476976	0.020839	5.214864	0.005064	4.492799	0.012871	4.867412
3.953723	0.015597	4.138368	0.008153	4.449589	0.004406	4.346966	0.005532	4.610797	0.014189	5.052796
4.116973	0.025779	4.588519	0.019061	4.569295	0.037861	4.946515	0.015529	4.61435	0.019709	5.209822
4.25972	0.008387	4.181851	0.012775	4.748038	0.013113	4.691441	0.016446	5.019382	0.002384	4.823189
4.491013	0.019221	4.477234	0.006935	4.414431	0.03109	5.279735	0.004867	4.64726	0.007819	4.673371
4.240825	0.021019	4.340919	0.014266	4.409089	0.04702	5.326122	0.004764	4.473935	0.002572	4.769279