

# Eigenvalues with Klein Bottle Horizontal Glued Identifications

SPUR 2016

Klein Bottle Horizontal Glued Identifications					
	Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
0	1.7763568394e-15	2.67841304691e-15	-3.25607596441e-15	0.663212435233	-0.822589238146
1	0.441021780966	0.0723637885836	0.0112916476013	6.09450927872	6.40861202356
2	0.690590970621	0.111949463442	0.0173792448259	6.16877427892	6.44156087125
3	0.757328961658	0.121964018819	0.0189779705353	6.20944577745	6.42661018957
4	0.758799842469	0.123382005025	0.0193997120722	6.15000414618	6.35999155896
5	1.12507512074	0.185282854095	0.0290511238127	6.07220309853	6.37782053769
6	1.48275402202	0.246575259377	0.0384654367995	6.01339333788	6.41030701566
7	1.49838811955	0.253083571173	0.0398038713218	5.9205270125	6.35826523322
8	1.56922273818	0.284412317861	0.045338106632	5.51742185423	6.27314060929
9	1.86621970714	0.319601099207	0.0507154074765	5.83921554643	6.30185411317
10	1.87462446692	0.341523432253	0.0535802666705	5.48900687298	6.37405249125
11	1.88363690629	0.342985495142	0.0543420271165	5.49188503005	6.31160656569
12	1.92606987712	0.346340470289	0.0556620448041	5.56120362	6.22220170868
13	2.0	0.356564951405	0.0576952360722	5.60907624858	6.18014546225
14	2.03712994973	0.406764368087	0.0640320629183	5.00813274111	6.35251075085
15	2.32933565713	0.424598126489	0.0675213169822	5.48597723779	6.28835670668
16	2.41553374839	0.441021780966	0.0723637885836	5.47713027483	6.09450927872
17	2.78765403799	0.502699310322	0.0795860574271	5.54537072311	6.31642434081
18	2.92981331722	0.542930732843	0.0867029053647	5.39629300754	6.26196700744
19	2.98983225608	0.566608348561	0.0903037935573	5.27671761928	6.27446894799
20	3.03114608259	0.6175044653	0.0991027194382	4.9087030992	6.23095379018
21	3.06640307644	0.636029470348	0.10248476484	4.82116508653	6.20608801063
22	3.16946673704	0.649861371272	0.105066421263	4.87714284485	6.18524323431
23	3.23477240994	0.675207482491	0.108499411589	4.79078282427	6.2231441867
24	3.26794919243	0.686410783795	0.111747591177	4.76092344349	6.14251078313
25	3.36288406035	0.690590970621	0.111949463442	4.86957432606	6.16877427892
26	3.3683025148	0.706394324056	0.114269252451	4.76830348162	6.18184077433
27	3.51128162693	0.740387190131	0.120415152323	4.74249375696	6.14862146374
28	3.65098985108	0.750493441814	0.120835845842	4.86478581645	6.21085106479
29	3.73118391612	0.757328961658	0.121964018819	4.92676776542	6.20944577744

Klein Bottle Horizontal Glued Identifications					
	Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
30	3.76733918152	0.758799842469	0.123382005025	4.96486552932	6.15000414618
31	3.84320023286	0.779240033129	0.126383196879	4.93198510019	6.16569332296
32	3.96932301514	0.810304896091	0.132554538824	4.89855489494	6.11299245791
33	** 4.0	0.896083771535	0.147467628332	4.46386836484	6.07647781193
34	** 4.0	0.923127036593	0.150733658413	4.33309809099	6.12422630958
35	4.23864505151	0.942261259482	0.152039330624	4.49837559261	6.1974836091
36	4.45257105461	0.944572601929	0.154944570823	4.71384734801	6.09619683291
37	4.58578643763	0.94876306565	0.156611158525	4.8334369282	6.0580808838
38	4.65856481536	0.977740186195	0.159960044072	4.76462446889	6.1124025807
39	4.69919119578	0.983863713371	0.160836656167	4.77626233382	6.11716095582
40	4.7279682249	1.02376676557	0.168198090267	4.61820834971	6.08667294585
41	4.8423550361	1.04620341896	0.171986327867	4.62850240053	6.08306155458
42	4.91395612707	1.071901948	0.176904932454	4.5843336102	6.05919763306
43	5.02616265324	1.12507512074	0.185282854095	4.46740182996	6.07220309853
44	5.24180676624	1.13772589907	0.188812966517	4.60726680347	6.02567673217
45	5.28160345322	1.16921586049	0.192991187122	4.51721844674	6.05838990848
46	5.31502684528	1.186824881	0.195747720638	4.47835812204	6.06303295454
47	5.55157856194	1.18706513867	0.196484692075	4.67672613835	6.04151461435
48	5.57257068024	1.21009324606	0.201176586582	4.60507543396	6.01507991871
49	5.73371692438	1.2130286622	0.20178871371	4.72677777784	6.0113801208
50	5.94691370594	1.27707952227	0.210210854241	4.65665105596	6.07523111442
51	6.00016431446	1.29307032415	0.213493687654	4.64024593434	6.05671454909
52	6.07534014682	1.30432639392	0.217367289967	4.65783731368	6.00056427126
53	6.09573933235	1.31065578057	0.219215439077	4.65090790633	5.9788479593
54	6.44874903299	1.39379079672	0.24209852939	4.62676970474	5.75712211151
55	6.73205080757	1.45057626062	0.242236230966	4.64094924916	5.98827126246
56	6.91189479407	1.45576304148	0.24452988236	4.74795320194	5.95331346596
57	7.01403386719	1.45635464763	0.246575259377	4.81615784905	5.90632917233
58	7.13083618949	1.47841443168	0.250041225824	4.82329990609	5.91268270586
59	7.24963276888	1.48275402202	0.251922793123	4.88930238004	5.88574778661

Klein Bottle Horizontal Glued Identifications					
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60	7.25326741767	1.4926015234	0.253083571173	4.8594801117	5.89766264355
61	7.27082737554	1.49838811955	0.256959016923	4.8524326112	5.83123385781
62	7.27755947968	1.4998727589	0.261967036733	4.85211791232	5.72542552533
63	7.41421356237	1.5001844392	0.263652918098	4.94220135115	5.68999747858
64		1.5198391552	0.264634868771		5.74315532286
65		1.53104293626	0.26566008973		5.76316501968
66		1.56050564787	0.267405515068		5.83572723798
67		1.56922273818	0.269682933538		5.81876916567
68		1.59849449704	0.276329410625		5.78474254124
69		1.61501827213	0.279448744981		5.77930050191
70		1.61627000344	0.284319669413		5.68469289083
71		1.64941553723	0.284412317861		5.79938150933
72		1.67276435995	0.292072105914		5.72723079705
73		1.69893538009	0.296588120069		5.72826510953
74		1.71709684957	0.301033754412		5.70400104442
75		1.72810876286	0.306400062832		5.64004049769
76		1.73428639395	0.306446593851		5.65934302665
77		1.74392114232	0.307742595639		5.66681755154
78		1.77673456527	0.308833591057		5.75304829759
79		1.82158995157	0.319601099207		5.69957348737
80		1.84435647273	0.321130082776		5.74333135278
81		1.84979861528	0.323830269742		5.71224739663
82		1.86621970714	0.327100655919		5.70533770989
83		1.87462446692	0.33977224876		5.51729717116
84		1.88363690629	0.341523432253		5.51539580714
85		1.9007445851	0.342717302086		5.54610045517
86		1.91007800481	0.342985495142		5.56897604087
87		1.92606987712	0.343167703271		5.6126198904
88		1.93736803342	0.345561778362		5.60643032515
89		1.9400443511	0.346340470289		5.60155256902

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90	1.94931486645	0.347231121227		5.61388293643
91	1.95161684785	0.353812683075		5.51596067979
92	1.96655093249	0.354048342202		5.55447010501
93	1.97427530606	0.356564951405		5.53693036369
94	2.0	0.35982328136		5.55828403444
95	2.00011219398	0.36094345268		5.54134499222
96	2.02084573828	0.363069130593		5.56600814557
97	2.02629592984	0.366011269322		5.53615721611
98	2.03512054556	0.366689848832		5.54997786833
99	2.03712994973	0.372435279287		5.46975558716
100	2.04067921259	0.374169309329		5.45389256069
101	2.0446425589	0.375362564444		5.44711367775
102	2.04862772873	0.376034379607		5.44797986521
103	2.05414521489	0.379911733881		5.40690121335
104	2.05673132918	0.385771307199		5.33147823802
105	2.06674041231	0.38694519415		5.34117090366
106	2.07455416742	0.391454730497		5.29960173118
107	2.07785574493	0.401140968938		5.17986420194
108	2.09076235216	0.406764368087		5.1399840207
109	2.09539335559	0.413576616915		5.06651795554
110	2.11321870698	0.415835233414		5.08186545337
111	2.11732256497	0.418108417457		5.06405151527
112	2.13048741746	0.421558342909		5.05383763195
113	2.13293752459	0.422263594809		5.05119918176
114	2.13404240059	0.424485651347		5.02736050987
115	2.15504750147	0.424598126489		5.0754993181
116	2.16544889267	0.424781064727		5.09779995505
117	2.17350483982	0.426242105002		5.09922603683
118	2.17878265825	0.427534148927		5.09616053762
119	2.24326631855	0.428164067809		5.23926804515

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120	2.26867657336	0.430295985447		5.27236286205
121	2.27470027636	0.433173815914		5.25124140193
122	2.2794192474	0.433989092633		5.25225008207
123	2.28608293789	0.43579789116		5.24574116641
124	2.32933565713	0.435955028813		5.34306408501
125	2.33273105256	0.436855013197		5.33982896406
126	2.34407668487	0.437010079898		5.36389614953
127	2.39262649194	0.437274949007		5.47167519514
128	2.41003507025	0.439599898592		5.48233763921
129	2.41061059303	0.441021780966		5.46596720857
130	2.41553374839	0.450139797986		5.3661857032
131	2.47126655851	0.451845040429		5.46927892837
132	2.47495412335	0.452107641792		5.47425854945
133	2.52103204348	0.454962434841		5.54118725068
134	2.53660988695	0.459185109326		5.52415536879
135	2.56302137554	0.461654077441		5.55182224265
136	2.60642512143	0.470058365443		5.54489678951
137	2.60720885307	0.483721235103		5.38989952036
138	2.65863126387	0.485214890001		5.47928622689
139	2.67579141	0.486518947713		5.49987091476
140	2.74418647977	0.493763734123		5.55769144253
141	2.75286853338	0.502699310322		5.47617328461
142	2.78439864957	0.503744232764		5.52740551349
143	2.78765403799	0.506016022773		5.50902325722
144	2.78972546178	0.50905537738		5.48020035882
145	2.79094984075	0.515949245515		5.40934959206
146	2.8248528803	0.520279020538		5.4294960373
147	2.82649672783	0.523570130589		5.39850645155
148	2.84239242971	0.523974333048		5.42467874938
149	2.84241170051	0.52525690526		5.41146945818

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150	2.85166782407	0.532186495129		5.3583994524
151	2.86120932853	0.533749808907		5.36058145742
152	2.88032755779	0.538223073733		5.35154975392
153	2.88582990679	0.539714833448		5.34695310921
154	2.90258628802	0.542930732843		5.34614475187
155	2.91170473618	0.54428188014		5.34962643885
156	2.92544461069	0.545761571651		5.36029790782
157	2.92981331722	0.554734294429		5.28147141188
158	2.94164763037	0.559412634863		5.25845761615
159	2.97349299219	0.559474853088		5.31479292728
160	2.97785997138	0.566608348561		5.25558788349
161	2.98983225608	0.574352989563		5.20556575906
162	2.9908053291	0.575123270683		5.20028571536
163	2.9944307923	0.576556187234		5.19364956721
164	2.99617531601	0.582179587497		5.14647950626
165	3.00599061374	0.585930468587		5.13028554563
166	3.01830003623	0.586247839543		5.14850517587
167	3.03114608259	0.592155828306		5.11883179679
168	3.03248556628	0.593189055076		5.11217383451
169	3.03321674895	0.59826941483		5.06998464867
170	3.05169628017	0.604558870807		5.04780663643
171	3.05286702185	0.604763154766		5.04803739743
172	3.06640307644	0.609604624237		5.03015061653
173	3.06661385825	0.61046804761		5.023381437
174	3.08392261669	0.612910528402		5.03160326635
175	3.10112679055	0.6175044653		5.02203136142
176	3.10122343102	0.618365142058		5.01519768836
177	3.12912706897	0.618446017204		5.05966079807
178	3.14229661434	0.621884714184		5.05286034963
179	3.14529149961	0.627405474698		5.0131719063

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180	3.15481987174	0.627865256715		5.02467661334
181	3.16946673704	0.634713779167		4.99353699427
182	3.18268202074	0.635066122632		5.01157581442
183	3.19715619694	0.636029470348		5.02674222814
184	3.19791269934	0.63674339478		5.02229426416
185	3.20343187467	0.640017817098		5.00522296269
186	3.21323959822	0.646649343619		4.96906032602
187	3.21733207124	0.649861371272		4.95079752923
188	3.22796448099	0.651789460347		4.95246498658
189	3.23211767772	0.654661651696		4.93708111563
190	3.23477240994	0.656752391615		4.92540636508
191	3.23637917059	0.658611975074		4.91393915245
192	3.25639253491	0.659723508736		4.93599590099
193	3.26794919243	0.667695359299		4.89437158267
194	3.28186095453	0.669827074797		4.8995644966
195	3.28370070319	0.675207482491		4.86324691052
196	3.28419801339	0.676279303049		4.85627461699
197	3.29674107773	0.677321798446		4.86731873282
198	3.30223628869	0.686410783795		4.81087472203
199	3.30563254991	0.690249642803		4.78903913154
200	3.31447899476	0.690590970621		4.79948208963
201	3.32173448596	0.692943415321		4.79365906728
202	3.32375344531	0.694275729105		4.78736805273
203	3.34352539418	0.696075912482		4.80339189193
204	3.34693244583	0.702958588856		4.76120855323
205	3.34792599125	0.703041750845		4.76205856512
206	3.35466988938	0.705414263891		4.75560257441
207	3.36288406035	0.706394324056		4.76063290124
208	3.3683025148	0.712018452645		4.73063935672
209	3.37953552792	0.712628490651		4.74235253327

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210	3.38214395047	0.719824292596		4.69856878305
211	3.38632743125	0.720396703011		4.70064260025
212	3.40193321635	0.722647333574		4.70759810255
213	3.41972168316	0.728673782773		4.69307633129
214	3.42233676563	0.731134207223		4.68085986378
215	3.42395520327	0.733728502002		4.66651519455
216	3.43134324145	0.735516148189		4.66521809194
217	3.43432819629	0.736640979746		4.66214654182
218	3.43655105986	0.740387190131		4.64155931608
219	3.48098166924	0.742551657393		4.68786465505
220	3.49108622606	0.744158301902		4.69132201729
221	3.50187512397	0.744436287151		4.7040629056
222	3.51128162693	0.748448839625		4.69141167844
223	3.51183477532	0.750493441814		4.67936770618
224	3.51946035375	0.750641577713		4.68860300075
225	3.52256951635	0.751765909558		4.68572659596
226	3.5686755852	0.752291567604		4.74373997913
227	3.57107498334	0.753119160284		4.74171309358
228	3.57497040076	0.753919537216		4.74184607811
229	3.58422978366	0.757328961658		4.73272509717
230	3.61164760779	0.758799842469		4.75968418238
231	3.61944244429	0.761542536668		4.7527777767
232	3.62455209706	0.767557375792		4.72219043341
233	3.63702104945	0.769300305864		4.72769999144
234	3.64036412742	0.770905557583		4.72219209164
235	3.65098985108	0.772274982529		4.72757752572
236	3.65410269223	0.774989445353		4.71503542937
237	3.65718388383	0.779240033129		4.69327001739
238	3.65976052797	0.781351254826		4.68388641519
239	3.686611531	0.781895157974		4.71496912777

Klein Bottle Horizontal Glued Identifications				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
240	3.70163789659	0.789326936717		4.6896130417
241	3.70904651627	0.790446695802		4.69234236283
242	3.7142698595	0.801941168977		4.63159892919
243	3.71856193566	0.804756146872		4.62073132354
244	3.72510223144	0.804877914898		4.62815808768
245	3.73118391612	0.807610056775		4.62003151746
246	3.73438173568	0.808025813021		4.62161192811
247	3.73670839785	0.80944100266		4.61640611925
248	3.75990070787	0.810304896091		4.64010612056
249	3.76733918152	0.812328239393		4.63770554664
250	3.78914135811	0.816136745976		4.6427775453
251	3.78993365934	0.819479757511		4.62480448675
252	3.80511898068	0.829272221751		4.58850408934
253	3.8294999636	0.832396952245		4.60056941976
254	3.83783602582	0.838707196111		4.5758949531
255	3.84320023286	0.839156461008		4.5798375052
256	3.84837272846	0.840850344487		4.57676298012
257	3.91213676482	0.844662075853		4.63159987486
258	3.92809639303	0.847800276752		4.63328038542
259	3.93919849258	0.854375237052		4.61061875596
260	3.96857683855	0.858441721833		4.6230008836
261	3.96932301514	0.860760560417		4.61141367027
262	** 4.0	0.865569557429		4.62123461445
263	** 4.0	0.86810497792		4.60773766047
264	4.02499275839	0.868757727161		4.63304398056
265	4.04309491188	0.875314755558		4.61901834307
266	4.06045777054	0.877699667847		4.62624963787
267	4.0888519865	0.879311786446		4.65005934133
268	4.09048988139	0.882825674312		4.63340611902
269	4.1178069677	0.886036104499		4.64744827755

Klein Bottle Horizontal Glued Identifications				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
270	4.13220901594	0.887122773632		4.65799000856
271	4.19451290983	0.888940333334		4.71855393724
272	4.21193453676	0.889828078152		4.7334250741
273	4.21303549507	0.891464964431		4.7259686731
274	4.21650059759	0.896083771535		4.70547590697
275	4.21872101267	0.896331697098		4.70665159597
276	4.23199573406	0.897934435475		4.71303423375
277	4.23864505151	0.90117603915		4.70345955437
278	4.25690671234	0.901278643212		4.7231860473
279	4.29468898498	0.906540300911		4.73744959895
280	4.30766689191	0.909263655565		4.7375333497
281	4.31537166855	0.91078567418		4.73807591719
282	4.32079091826	0.912746327842		4.73383544415
283	4.34868737275	0.923127036593		4.71082223829
284	4.35171471	0.924911342175		4.70500740078
285	4.37669264685	0.925262591756		4.73021679018
286	4.37733393633	0.930266464259		4.70546247179
287	4.38133128678	0.933032433593		4.69579741179
288	4.41365370209	0.935363127592		4.71865265146
289	4.42018942175	0.940325945568		4.70069920179
290	4.43214661401	0.942261259482		4.70373430873
291	4.44885255031	0.944572601929		4.70991064236
292	4.45257105461	0.946535245111		4.70407317382
293	4.45291089058	0.94876306565		4.69338557939
294	4.45622099579	0.954488117718		4.66870243125
295	4.46906095298	0.95595931782		4.67494889131
296	4.47832050572	0.956515010196		4.68191346501
297	4.48375148278	0.958037128859		4.68014375196
298	4.50980027397	0.960627459779		4.69464018341
299	4.52157126665	0.960652969432		4.70676863605

Klein Bottle Horizontal Glued Identifications				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
300	4.53213457706	0.96165242446		4.71286138503
301	4.54805441314	0.961816363821		4.72860993451
302	4.5596386855	0.97221557237		4.68994615504
303	4.56374117147	0.975007706297		4.68072317992
304	4.56950614738	0.977740186195		4.67353823837
305	4.57825635922	0.977796090016		4.68221994951
306	4.58578643763	0.978651701805		4.68582073599
307	4.59890480479	0.979822878626		4.69360830933
308	4.64815431792	0.983863713371		4.72438840334
309	4.64983500985	0.98406591467		4.72512556378
310	4.65532329124	0.985261229716		4.72496344202
311	4.65856481536	0.987003677613		4.71990623848
312	4.6629939673	0.99208843047		4.70017976633
313	4.69606707546	0.996929421772		4.71053112979
314	4.69919119578	0.997433437048		4.71128300019
315	4.70438985045	1.00386345203		4.68628461465
316	4.70972994745	1.00611476472		4.68110608512
317	4.71631227434	1.00731151868		4.68207916504
318	4.71706507923	1.01525106071		4.64620551681
319	4.72356856369	1.01764715926		4.64165651201
320	4.7279682249	1.01967138058		4.63675681692
321	4.72990654701	1.02017154767		4.63638351589
322	4.7513525181	1.02376676557		4.64104977608
323	4.78356738513	1.02597036789		4.66248103729
324	4.8146264036	1.02794703361		4.68373004269
325	4.82479177993	1.03131082998		4.6783100106
326	4.8423550361	1.03413037992		4.6825382274
327	4.85459398679	1.03649637939		4.68365744765
328	4.85537326613	1.0387380428		4.67430003145
329	4.86012290592	1.03938966293		4.67593923553

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
330	4.87473314084	1.04554547279		4.6623827157
331	4.91078674184	1.04620341896		4.69391196096
332	4.91395612707	1.05002254152		4.67985774854
333	4.91525014378	1.05148321831		4.67458734306
334	4.91892742519	1.0519928102		4.67581848229
335	4.92161884099	1.06074555907		4.63977322261
336	4.96203836772	1.06081973596		4.67755095379
337	4.96267288307	1.06288639465		4.66905297502
338	4.96595401261	1.06474540982		4.66398255098
339	4.9691319909	1.07116653671		4.63899106312
340	4.97783494729	1.071901948		4.64392751273
341	4.98074765109	1.07405765005		4.63731872385
342	4.98624177107	1.07731961799		4.62837739868
343	4.9982907522	1.08006960061		4.62774875748
344	5.02315028924	1.08238497276		4.64081672939
345	5.02616265324	1.08306633286		4.64067850761
346	5.02785546004	1.09313661824		4.59947583511
347	5.03403068623	1.09573377819		4.59420963963
348	5.04446619078	1.09756078329		4.59607000141
349	5.05716953741	1.09950121532		4.59951245797
350	5.07269994221	1.11070977255		4.56707959864
351	5.09828369988	1.11156159954		4.5865957424
352	5.10243895839	1.1124473573		4.58667902343
353	5.11072441878	1.1150548501		4.58338387419
354	5.11349017955	1.11575176857		4.58299984244
355	5.13306762973	1.12183616856		4.5755947023
356	5.14106483886	1.12507512074		4.56953028654
357	5.14555728418	1.12583614437		4.57043177188
358	5.16167455321	1.12818477509		4.57520316458
359	5.17121658417	1.13109455045		4.57186941809

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
360	5.17387656644	1.13197876561		4.5706480754
361	5.17745867101	1.13632883922		4.55630315126
362	5.19269487775	1.13772589907		4.56410008947
363	5.21178882954	1.1412414059		4.56677158978
364	5.21387149143	1.141278618		4.56844753698
365	5.24180676624	1.1416402978		4.59146963922
366	5.24674818992	1.14683272767		4.57498993823
367	5.24909229705	1.15058071908		4.56212433426
368	5.25411741133	1.15459003216		4.55063465383
369	5.27300217233	1.16193178073		4.53813404519
370	5.28160345322	1.16369138438		4.53866336392
371	5.28926706108	1.16566097453		4.53756896442
372	5.29736853662	1.16921586049		4.53070191368
373	5.30448162208	1.17616066052		4.50999748601
374	5.31502684528	1.18076070542		4.50135816757
375	5.31775561184	1.18153734059		4.50070888932
376	5.34939192354	1.18434386528		4.51675571626
377	5.35398400376	1.18581340204		4.51503077513
378	5.36847346849	1.1861285375		4.52604696604
379	5.38653120871	1.186824881		4.53860657535
380	5.46457752268	1.18706513867		4.60343526624
381	5.5042707794	1.18979845333		4.6262211587
382	5.51777818923	1.19762847657		4.60725366604
383	5.52276335632	1.19977206268		4.60317716016
384	5.53087032815	1.19996035124		4.60921089805
385	5.53793561187	1.20224993864		4.60630974798
386	5.55157856194	1.21009324606		4.58772791271
387	5.57257068024	1.2130286622		4.59393158125
388	5.60197246712	1.21330694958		4.6171106735
389	5.62209746285	1.2183369173		4.61456710621

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
390	5.6400746512	1.2238420482		4.60849883324
391	5.65297445142	1.22954110251		4.59762950574
392	5.6646924576	1.23952570989		4.57004837607
393	5.67168457166	1.2409157846		4.57056364506
394	5.70995665292	1.24269881199		4.59480334079
395	5.73371692438	1.25345886543		4.57431598478
396	5.73735594832	1.25445618646		4.57358017781
397	5.73972316894	1.25614380831		4.56932011363
398	5.74573589164	1.25783493846		4.56795698382
399	5.76075182339	1.25991990558		4.57231590506
400	5.76131535765	1.2613878918		4.56744146278
401	5.81334781917	1.26781220444		4.5853382692
402	5.88955963182	1.27219640395		4.62944213138
403	5.92958265775	1.27707952227		4.64308021101
404	5.93152431359	1.28287896454		4.62360400127
405	5.93506299521	1.28397316239		4.62241982081
406	5.94622406526	1.28430539149		4.62991443052
407	5.94691370594	1.28590662263		4.62468549526
408	5.9798268014	1.29092374447		4.63220761646
409	6.00016431446	1.29148166678		4.6459539216
410	6.01191086728	1.29307032415		4.64933016789
411	6.01464002847	1.29561476539		4.64230586832
412	6.01846562174	1.29608903596		4.64355877933
413	6.02933658971	1.29982431256		4.63857809969
414	6.07534014682	1.30136369736		4.66844138894
415	6.08725418769	1.30418051965		4.66749356854
416	6.09573933235	1.30432639392		4.67347694623
417	6.11412133859	1.30659544326		4.6794295588
418	6.13381352797	1.31065578057		4.67995763562
419	6.19029341318	1.31319761438		4.71390851261

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
420	6.2107305226	1.31447800274		4.72486455434
421	6.21568908666	1.32059927009		4.70671855379
422	6.22712429782	1.32210622069		4.71000302423
423	6.22973268195	1.32524213988		4.70082598076
424	6.26439727011	1.32962119316		4.71141502733
425	6.26994785921	1.33083040501		4.71130493834
426	6.31126311638	1.33260156502		4.7360466039
427	6.31295873193	1.33284247864		4.73646273519
428	6.31411965129	1.33762262222		4.720404355
429	6.32997746422	1.34094684423		4.72052825321
430	6.33635962794	1.34487173134		4.71149737203
431	6.43254733792	1.34694221572		4.77566688671
432	6.44874903299	1.35092749631		4.77357152815
433	6.48310270721	1.35100094862		4.79874030721
434	6.48355250273	1.35182486287		4.79614828874
435	6.5027171582	1.3575511825		4.79003461675
436	6.5103765784	1.36001567156		4.78698644032
437	6.53020561343	1.36386346228		4.78802005774
438	6.53841300473	1.37366383793		4.75983484764
439	6.54693357825	1.37738169323		4.75317307498
440	6.59421013638	1.3782604434		4.78444416509
441	6.60403777192	1.38053569869		4.78367765369
442	6.63550038294	1.3828845117		4.79830407152
443	6.65732362015	1.38738561945		4.79846664605
444	6.66817510063	1.39122630185		4.79301972064
445	6.71156314552	1.39379079672		4.81533036473
446	6.73205080757	1.40065846576		4.80634713755
447	6.74042214356	1.40240564545		4.80632844385
448	6.83304643249	1.4025799716		4.87176957525
449	6.84070551877	1.40394043039		4.87250411109

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
450	6.89709536506	1.40443581735		4.91093667638
451	6.91143080912	1.40786584103		4.90915441492
452	6.91189479407	1.41352659568		4.88982295431
453	6.9405386971	1.41916801282		4.89056872365
454	6.96392833079	1.41917737731		4.90701757378
455	6.98331017245	1.41938882635		4.91994162755
456	6.98850583186	1.42201725525		4.91450142822
457	7.01403386719	1.42242132044		4.93105226025
458	7.02207551542	1.42770448251		4.9184376749
459	7.02944248238	1.43024156592		4.91486378937
460	7.05735032758	1.43049127038		4.93351513128
461	7.05810689884	1.43430130633		4.92093737046
462	7.07085882043	1.43707462474		4.92031429592
463	7.07680409699	1.44113359011		4.91058160433
464	7.0938033871	1.4417770696		4.92018047496
465	7.09410756164	1.44646018217		4.904461007
466	7.09500614148	1.45045685544		4.89156648462
467	7.11721513815	1.45057626062		4.90647429672
468	7.11919151073	1.45318700251		4.89901953324
469	7.13083618949	1.45576304148		4.89834951588
470	7.1373761756	1.45635464763		4.90085034384
471	7.14977602954	1.45959077422		4.89847987246
472	7.14979357221	1.45959447873		4.89847945878
473	7.17408521634	1.46096751893		4.91050288483
474	7.17430826509	1.46118207466		4.90993449039
475	7.17476050256	1.46507171813		4.89720770238
476	7.19187555644	1.46726057698		4.90156668099
477	7.19384631793	1.47000593376		4.8937532514
478	7.19466783395	1.47110505685		4.89065536172
479	7.20395879713	1.47114728417		4.89683043611

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
480	7.20710721045	1.47607480275		4.8826165158
481	7.21192826378	1.47841443168		4.87815061138
482	7.21416569233	1.48168118269		4.86890552206
483	7.21869664849	1.48275402202		4.86843842018
484	7.22445523844	1.48780990329		4.85576498883
485	7.23142850112	1.48938918954		4.85529809931
486	7.23556866443	1.49168681691		4.85059503267
487	7.23735654488	1.49188766898		4.85114040108
488	7.2403480935	1.4926015234		4.85082453687
489	7.24198847295	1.49534917185		4.84300831489
490	7.24963276888	1.49838811955		4.83828767346
491	7.25326741767	1.49849106106		4.84038083787
492	7.26206831667	1.4998727589		4.84178959419
493	7.269557156	1.5001844392		4.84577560337
494	7.26970881493	1.50388539593		4.83395133339
495	7.27082737554	1.50651233807		4.82626473863
496	7.27194611135	1.50744970368		4.82400579839
497	7.27755947968	1.51048977274		4.8180130783
498	7.28194995011	1.51066773918		4.82035179627
499	7.29941275112	1.51368801712		4.82227028856
500	7.30739274407	1.51649688787		4.81860055402
501	7.31164817726	1.51926048741		4.81263630421
502	7.32082432359	1.51969675785		4.81729284857
503	7.32263103949	1.51970402505		4.81845867272
504	7.3408187396	1.5198391552		4.82999711811
505	7.34247229851	1.52420986359		4.81723184837
506	7.3486787337	1.52433168645		4.82091843857
507	7.34927767612	1.52511316684		4.81884088075
508	7.35195175996	1.52793374537		4.81169539073
509	7.35291034972	1.52973730653		4.80664903598

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
510	7.3719507276	1.53022898476		4.81754743965
511	7.41421356237	1.53104293626		4.84259022839
512		1.53253222157		
513		1.53736336858		
514		1.54000144535		
515		1.54038395983		
516		1.5423555998		
517		1.5451724276		
518		1.54767007288		
519		1.54857970273		
520		1.5501558595		
521		1.55098082864		
522		1.55309953671		
523		1.55554173085		
524		1.55861076388		
525		1.56050564787		
526		1.56067708557		
527		1.56197248033		
528		1.56919293516		
529		1.56922273818		
530		1.57376307899		
531		1.58124897054		
532		1.5844788519		
533		1.58875393686		
534		1.59143695923		
535		1.59728053776		
536		1.59821509286		
537		1.59849449704		
538		1.59991908953		
539		1.60054978912		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
540		1.61030289205		
541		1.61214388324		
542		1.61501827213		
543		1.61627000344		
544		1.61703039799		
545		1.61775889026		
546		1.62056086486		
547		1.62143045109		
548		1.6229398455		
549		1.6257028346		
550		1.62815052191		
551		1.63017707717		
552		1.6312497237		
553		1.63142089982		
554		1.63518395979		
555		1.63616602765		
556		1.63677967955		
557		1.64161514444		
558		1.64261473815		
559		1.64804193803		
560		1.64886689409		
561		1.64941553723		
562		1.65178232728		
563		1.65398977535		
564		1.65493677603		
565		1.65704207562		
566		1.65736606293		
567		1.66173628156		
568		1.66270758815		
569		1.66411596984		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
570		1.66774028446		
571		1.6699547396		
572		1.6701535344		
573		1.67276435995		
574		1.67919599173		
575		1.67952730337		
576		1.68154930044		
577		1.68383169707		
578		1.68430257101		
579		1.68743297504		
580		1.68974467282		
581		1.6925017636		
582		1.69351158582		
583		1.6964076254		
584		1.69839880321		
585		1.69893538009		
586		1.69969874252		
587		1.70490226549		
588		1.70592281951		
589		1.70629138016		
590		1.71116049097		
591		1.71396416092		
592		1.71622472268		
593		1.71709684957		
594		1.71896646331		
595		1.72029349592		
596		1.7213063164		
597		1.725812102		
598		1.72715752443		
599		1.72735594123		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
600		1.72810876286		
601		1.73169282217		
602		1.73250631849		
603		1.73273393325		
604		1.73428639395		
605		1.73696473652		
606		1.73706754058		
607		1.73963136631		
608		1.74033315706		
609		1.74186283734		
610		1.74392114232		
611		1.74680521128		
612		1.74959164781		
613		1.75253047926		
614		1.75439308236		
615		1.75557336824		
616		1.75726250078		
617		1.75903966877		
618		1.76221960328		
619		1.76230785217		
620		1.76484610877		
621		1.76761603863		
622		1.77000831862		
623		1.77169969018		
624		1.77375863325		
625		1.7753735945		
626		1.77673456527		
627		1.78005525492		
628		1.78097533937		
629		1.78190965947		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
630		1.78202546234		
631		1.78547620748		
632		1.78792489025		
633		1.78967059008		
634		1.7906908949		
635		1.79277111496		
636		1.79434262664		
637		1.79594074986		
638		1.79828755154		
639		1.79929848855		
640		1.7993465847		
641		1.80028654798		
642		1.80259965051		
643		1.80433894671		
644		1.80550520114		
645		1.81221412477		
646		1.81599700582		
647		1.81657533523		
648		1.81704539664		
649		1.81857614522		
650		1.8194328903		
651		1.81994002495		
652		1.82158995157		
653		1.82315324491		
654		1.82705777513		
655		1.8312239722		
656		1.83200370647		
657		1.83292624453		
658		1.83501743875		
659		1.83703869518		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
660		1.83874195697		
661		1.84169579486		
662		1.84326092169		
663		1.84435647273		
664		1.84444630673		
665		1.846105059		
666		1.84979861528		
667		1.85416008192		
668		1.8551622436		
669		1.85653014719		
670		1.85810221846		
671		1.86106904234		
672		1.86470658151		
673		1.86621970714		
674		1.86768527539		
675		1.86808332697		
676		1.86827042646		
677		1.86960790164		
678		1.8717667559		
679		1.87178123428		
680		1.87293346146		
681		1.87462446692		
682		1.87824608772		
683		1.88070168458		
684		1.88098633728		
685		1.88363690629		
686		1.88551026111		
687		1.88579439693		
688		1.88625459341		
689		1.88627388852		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
690		1.8939009898		
691		1.89469191325		
692		1.89484938079		
693		1.89518082615		
694		1.89706706594		
695		1.9007445851		
696		1.90439816931		
697		1.90942580111		
698		1.90980029871		
699		1.91007800481		
700		1.9104001254		
701		1.91049637617		
702		1.91350449183		
703		1.91397352586		
704		1.91471418435		
705		1.9157641292		
706		1.91868130349		
707		1.92028793357		
708		1.92084758565		
709		1.92235300411		
710		1.92606987712		
711		1.92685268361		
712		1.93096546114		
713		1.93465142235		
714		1.93736803342		
715		1.9400443511		
716		1.94175417586		
717		1.9448261947		
718		1.94515611699		
719		1.94680392205		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
720		1.94719507986		
721		1.94931486645		
722		1.95161684785		
723		1.95165878588		
724		1.95185684019		
725		1.95413650939		
726		1.95487568193		
727		1.95680740062		
728		1.95861194787		
729		1.95971929964		
730		1.96273259161		
731		1.96572491703		
732		1.96655093249		
733		1.96682951447		
734		1.96738369643		
735		1.97010054499		
736		1.97139912902		
737		1.97205276605		
738		1.97347007349		
739		1.97383061901		
740		1.97427530606		
741		1.97471122728		
742		1.97643385207		
743		1.9772759228		
744		1.98139222242		
745		1.98213826149		
746		1.98302475269		
747		1.9857529822		
748		1.98724664978		
749		1.98737316354		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
750		1.9903228084		
751		1.99116157602		
752		1.99288651769		
753		1.99512958938		
754		1.9973607799		
755		2.0		
756		2.00011219398		
757		2.00077503751		
758		2.00237287849		
759		2.00400549269		
760		2.00491580017		
761		2.00537911132		
762		2.00739882413		
763		2.00888786856		
764		2.00906334712		
765		2.00915859217		
766		2.00946430323		
767		2.00986862109		
768		2.01349326462		
769		2.01395129019		
770		2.01435446366		
771		2.01470507372		
772		2.01537400798		
773		2.01832346141		
774		2.01834406762		
775		2.01931118153		
776		2.0197055761		
777		2.02031502316		
778		2.02084573828		
779		2.02130308239		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
780		2.0221610468		
781		2.02421925206		
782		2.02542367967		
783		2.02592175797		
784		2.02629592984		
785		2.02711772697		
786		2.02805619507		
787		2.02901841899		
788		2.02917864552		
789		2.03009323873		
790		2.03224056746		
791		2.03352983158		
792		2.03367605433		
793		2.0337455821		
794		2.03391230875		
795		2.03482262495		
796		2.03512054556		
797		2.036171264		
798		2.03667317933		
799		2.03690202227		
800		2.03704031015		
801		2.03712994973		
802		2.03823307956		
803		2.03919789132		
804		2.03956155319		
805		2.04067921259		
806		2.04187339304		
807		2.04212763139		
808		2.04225736767		
809		2.04246258051		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
810		2.04291692341		
811		2.04347346634		
812		2.0446425589		
813		2.04482063695		
814		2.0451718363		
815		2.04579705271		
816		2.04616510813		
817		2.04664128878		
818		2.04862772873		
819		2.04979334471		
820		2.04982454195		
821		2.05079735891		
822		2.0515893193		
823		2.05169805587		
824		2.0519715343		
825		2.05384424269		
826		2.05414521489		
827		2.05416755729		
828		2.05433086842		
829		2.05638862993		
830		2.05673132918		
831		2.05729539929		
832		2.05798311785		
833		2.06045292339		
834		2.06138862249		
835		2.06229826971		
836		2.06278618879		
837		2.06279638069		
838		2.06442934074		
839		2.06674041231		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
840		2.06685269964		
841		2.06700443061		
842		2.06752472502		
843		2.06755896661		
844		2.06898203367		
845		2.06998019828		
846		2.07067287355		
847		2.07070129598		
848		2.07083110113		
849		2.07220415065		
850		2.07410960342		
851		2.07448037953		
852		2.07455416742		
853		2.07504082027		
854		2.07640620425		
855		2.0769089411		
856		2.07785574493		
857		2.07788956189		
858		2.0788678965		
859		2.0802272427		
860		2.08227113657		
861		2.08532610413		
862		2.08537258377		
863		2.08603304938		
864		2.08675078867		
865		2.0876024995		
866		2.08805290963		
867		2.08879871316		
868		2.09061782028		
869		2.09076235216		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
870		2.09148215253		
871		2.09164262801		
872		2.09252754251		
873		2.09476110058		
874		2.09483246532		
875		2.09539335559		
876		2.09766776385		
877		2.10100640956		
878		2.10132013319		
879		2.10246526522		
880		2.10342344707		
881		2.10510675527		
882		2.10717693996		
883		2.10740447853		
884		2.10818866445		
885		2.11321870698		
886		2.11334430841		
887		2.11338610344		
888		2.11679407311		
889		2.11732256497		
890		2.11742727249		
891		2.11773935285		
892		2.11995907496		
893		2.12172957293		
894		2.12249625285		
895		2.12433415738		
896		2.12668465375		
897		2.12669608529		
898		2.12677614094		
899		2.12856472056		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
900		2.12856993774		
901		2.12959708679		
902		2.13048741746		
903		2.13101461771		
904		2.13293752459		
905		2.1338088534		
906		2.13387875846		
907		2.13404240059		
908		2.13485030128		
909		2.14101508358		
910		2.14106949737		
911		2.14180017054		
912		2.14228381171		
913		2.14369937213		
914		2.14378905489		
915		2.14810097173		
916		2.14906946653		
917		2.14955976475		
918		2.15333892126		
919		2.15479886116		
920		2.15504750147		
921		2.15570348142		
922		2.15733047042		
923		2.15863595199		
924		2.15871224332		
925		2.16544889267		
926		2.16545761704		
927		2.16630666347		
928		2.16822432814		
929		2.16959781875		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
930		2.17004506249		
931		2.17133501069		
932		2.17305480993		
933		2.17350483982		
934		2.17609335211		
935		2.17669272329		
936		2.1772283136		
937		2.17878265825		
938		2.18033937842		
939		2.18150283492		
940		2.18243608337		
941		2.18323617553		
942		2.18677880526		
943		2.18817568731		
944		2.18908848523		
945		2.18928312495		
946		2.19493755573		
947		2.1960309696		
948		2.19839636508		
949		2.200388187		
950		2.20107505112		
951		2.2101315084		
952		2.21097545391		
953		2.21497528829		
954		2.21825961891		
955		2.22054214089		
956		2.22214748745		
957		2.2235975273		
958		2.22480731634		
959		2.22672851736		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
960		2.23375377698		
961		2.23798829071		
962		2.23866248067		
963		2.24326631855		
964		2.24437787999		
965		2.24581233933		
966		2.24777702186		
967		2.24954183106		
968		2.25032916143		
969		2.25033295986		
970		2.25509165092		
971		2.25904238856		
972		2.2600620234		
973		2.26426283775		
974		2.26867657336		
975		2.26873104453		
976		2.27061784837		
977		2.27366701083		
978		2.27470027636		
979		2.2756521716		
980		2.27882665161		
981		2.2794192474		
982		2.27960025008		
983		2.28551989056		
984		2.28599160068		
985		2.28608293789		
986		2.28969293004		
987		2.29861417866		
988		2.29952502802		
989		2.30400451477		

<b>Klein Bottle Horizontal Glued Identifications</b>					
	Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
990			2.30464962103		
991			2.30785931384		
992			2.31090230835		
993			2.31099548536		
994			2.31295459571		
995			2.31904630994		
996			2.31954825016		
997			2.31991775622		
998			2.32252902936		
999			2.3246976828		
1000			2.32933565713		
1001			2.33098120814		
1002			2.33194093009		
1003			2.33273105256		
1004			2.33488264112		
1005			2.34189403809		
1006			2.34352064655		
1007			2.34407668487		
1008			2.34480504865		
1009			2.34834711071		
1010			2.34952793406		
1011			2.35188835063		
1012			2.35444120907		
1013			2.35484417138		
1014			2.35583081489		
1015			2.35899960118		
1016			2.36323236385		
1017			2.36332164245		
1018			2.36566287164		
1019			2.36787113875		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1020		2.37030119657		
1021		2.37043833477		
1022		2.37864912359		
1023		2.3803140999		
1024		2.38422698971		
1025		2.38510511702		
1026		2.39262649194		
1027		2.39340807575		
1028		2.39488567965		
1029		2.39880756004		
1030		2.40235994701		
1031		2.40266809292		
1032		2.40636660592		
1033		2.40770957988		
1034		2.40965330299		
1035		2.41003507025		
1036		2.41061059303		
1037		2.41178185141		
1038		2.41553374839		
1039		2.41794832657		
1040		2.42086296013		
1041		2.4272884739		
1042		2.4277321138		
1043		2.43492082155		
1044		2.43531093954		
1045		2.44667950891		
1046		2.45618778322		
1047		2.46354494243		
1048		2.46928713816		
1049		2.47126655851		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1050		2.47495412335		
1051		2.48966934802		
1052		2.48989973985		
1053		2.48994892022		
1054		2.49197842566		
1055		2.49703517658		
1056		2.50059250453		
1057		2.5082676606		
1058		2.50972344177		
1059		2.51341803315		
1060		2.51412185164		
1061		2.51523196499		
1062		2.51629277723		
1063		2.52032252977		
1064		2.52103204348		
1065		2.52764935727		
1066		2.53320212479		
1067		2.5353694011		
1068		2.53660988695		
1069		2.53677551441		
1070		2.54123224823		
1071		2.54134015842		
1072		2.54194591399		
1073		2.549491213		
1074		2.5503363087		
1075		2.55187510942		
1076		2.55697151669		
1077		2.56234322612		
1078		2.56287450384		
1079		2.56302137554		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1080		2.56432180774		
1081		2.57676537551		
1082		2.57693259976		
1083		2.59048886702		
1084		2.59220900202		
1085		2.59296410958		
1086		2.59932645809		
1087		2.60183286502		
1088		2.60642512143		
1089		2.6070614692		
1090		2.60720885307		
1091		2.61151667372		
1092		2.61349691844		
1093		2.61674645256		
1094		2.61679649391		
1095		2.6176695818		
1096		2.62417123801		
1097		2.63142752221		
1098		2.63785760837		
1099		2.64185920567		
1100		2.64506522124		
1101		2.65137340888		
1102		2.65682078814		
1103		2.65863126387		
1104		2.66011794246		
1105		2.66044007066		
1106		2.66144551913		
1107		2.66220403846		
1108		2.66287928751		
1109		2.66969643421		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1110		2.67579141		
1111		2.67620242681		
1112		2.68035846378		
1113		2.68345715648		
1114		2.68569048779		
1115		2.68850183522		
1116		2.68956994367		
1117		2.69182002464		
1118		2.70086391182		
1119		2.70377831682		
1120		2.70385040524		
1121		2.71209720168		
1122		2.71288671764		
1123		2.71683004397		
1124		2.72025521645		
1125		2.72252418015		
1126		2.72470230769		
1127		2.7290936464		
1128		2.73105966812		
1129		2.7317670315		
1130		2.73802059012		
1131		2.738922891		
1132		2.73934488362		
1133		2.74063325088		
1134		2.74418647977		
1135		2.74511395874		
1136		2.7469814426		
1137		2.74928273994		
1138		2.75248484867		
1139		2.75286853338		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1140		2.75325089258		
1141		2.75617204408		
1142		2.75727166209		
1143		2.75985586003		
1144		2.76013743743		
1145		2.76203438101		
1146		2.76299736798		
1147		2.76343140331		
1148		2.76486811818		
1149		2.76560442689		
1150		2.76900576114		
1151		2.7710854916		
1152		2.77175622984		
1153		2.77416395659		
1154		2.77440058134		
1155		2.77723270658		
1156		2.77992231693		
1157		2.7806314346		
1158		2.78074109783		
1159		2.78312835284		
1160		2.78439864957		
1161		2.7844721782		
1162		2.78552067841		
1163		2.78738615167		
1164		2.78765403799		
1165		2.78972546178		
1166		2.78981223566		
1167		2.78992259493		
1168		2.79094984075		
1169		2.79141357782		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1170		2.7918407262		
1171		2.792456138		
1172		2.79690116127		
1173		2.79690327536		
1174		2.8001029831		
1175		2.8001215015		
1176		2.8002945489		
1177		2.80275020069		
1178		2.80279028779		
1179		2.80548817186		
1180		2.80572844099		
1181		2.80713263494		
1182		2.8088820275		
1183		2.81314861192		
1184		2.8155410551		
1185		2.81648340098		
1186		2.81734027314		
1187		2.81932571696		
1188		2.8244946391		
1189		2.8248528803		
1190		2.82591113393		
1191		2.82649672783		
1192		2.82988595062		
1193		2.8342672453		
1194		2.83470625746		
1195		2.83512158133		
1196		2.84085096525		
1197		2.84239242971		
1198		2.84241170051		
1199		2.84269086482		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1200		2.84481573442		
1201		2.84482574078		
1202		2.84737319439		
1203		2.84769785067		
1204		2.84919082506		
1205		2.84958998851		
1206		2.85160073774		
1207		2.85166782407		
1208		2.85255964709		
1209		2.85400702736		
1210		2.85851423611		
1211		2.85926465863		
1212		2.86120932853		
1213		2.86210887705		
1214		2.86515979712		
1215		2.86545996608		
1216		2.86691676001		
1217		2.86880999601		
1218		2.86928294207		
1219		2.87166229434		
1220		2.87260646124		
1221		2.87329701503		
1222		2.87752012798		
1223		2.87770554709		
1224		2.87778831314		
1225		2.88003510809		
1226		2.88032755779		
1227		2.88296231508		
1228		2.88346298089		
1229		2.88470139749		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1230		2.88582990679		
1231		2.88791525866		
1232		2.89091352058		
1233		2.89397306551		
1234		2.89530964446		
1235		2.8960231301		
1236		2.89767057051		
1237		2.89827051205		
1238		2.89883168471		
1239		2.90258628802		
1240		2.90458507045		
1241		2.90510473867		
1242		2.91170473618		
1243		2.91186461587		
1244		2.91673036174		
1245		2.91864247472		
1246		2.91971544324		
1247		2.92191105571		
1248		2.92323472381		
1249		2.92544461069		
1250		2.92649289686		
1251		2.92695769357		
1252		2.92872962822		
1253		2.92981331722		
1254		2.93034961176		
1255		2.93658712487		
1256		2.93985718951		
1257		2.94007076314		
1258		2.94013601272		
1259		2.94164763037		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1260		2.94381726865		
1261		2.94834646772		
1262		2.95132920216		
1263		2.95155985846		
1264		2.95171039825		
1265		2.9522824543		
1266		2.95759417637		
1267		2.9590378846		
1268		2.9591766607		
1269		2.96022929623		
1270		2.96234093259		
1271		2.96293883914		
1272		2.96324503658		
1273		2.96374671413		
1274		2.965054449		
1275		2.96635378391		
1276		2.96833427588		
1277		2.96858898696		
1278		2.96971731159		
1279		2.97122264547		
1280		2.97201828215		
1281		2.97280554087		
1282		2.97324960108		
1283		2.97349299219		
1284		2.97556102339		
1285		2.97785997138		
1286		2.97801643944		
1287		2.98029020218		
1288		2.98357005283		
1289		2.98364062926		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1290		2.9837494572		
1291		2.98423965646		
1292		2.98471610104		
1293		2.98581850278		
1294		2.98596732299		
1295		2.9864898596		
1296		2.98938775649		
1297		2.98973612682		
1298		2.98983225608		
1299		2.99025360378		
1300		2.9908053291		
1301		2.99118052987		
1302		2.99152261		
1303		2.99184123927		
1304		2.9944307923		
1305		2.99547679045		
1306		2.99617531601		
1307		2.99661896884		
1308		2.99688358857		
1309		2.99834042573		
1310		2.99897957786		
1311		2.99994239893		
1312		3.00151687722		
1313		3.001791835		
1314		3.00387936368		
1315		3.00538038593		
1316		3.00577348486		
1317		3.00599061374		
1318		3.00634102941		
1319		3.00637446527		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1320		3.00969671022		
1321		3.01057213977		
1322		3.01094452533		
1323		3.01166555814		
1324		3.01319287549		
1325		3.01511702681		
1326		3.01529443677		
1327		3.01688452423		
1328		3.01830003623		
1329		3.01875114862		
1330		3.02004707677		
1331		3.02134800492		
1332		3.02178054482		
1333		3.02438947718		
1334		3.0254338886		
1335		3.02544113734		
1336		3.02654583907		
1337		3.02684642747		
1338		3.02856579038		
1339		3.02868817094		
1340		3.03007702615		
1341		3.03040753303		
1342		3.03112215753		
1343		3.03114608259		
1344		3.03225700315		
1345		3.03248556628		
1346		3.03306396567		
1347		3.03321674895		
1348		3.03399330304		
1349		3.03503974957		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1350		3.03522360662		
1351		3.03543136737		
1352		3.03654348234		
1353		3.03816413445		
1354		3.03920993668		
1355		3.03954499847		
1356		3.04009298963		
1357		3.04194778706		
1358		3.04371001803		
1359		3.04424042407		
1360		3.04448518526		
1361		3.04506632837		
1362		3.04736039562		
1363		3.04800803849		
1364		3.04981101667		
1365		3.05104652147		
1366		3.05169628017		
1367		3.05232641792		
1368		3.05286702185		
1369		3.05315426541		
1370		3.05767199764		
1371		3.05853455035		
1372		3.05946141444		
1373		3.06360188159		
1374		3.0646140774		
1375		3.06467395429		
1376		3.06519249164		
1377		3.06640307644		
1378		3.066498079		
1379		3.06661385825		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1380		3.06844138463		
1381		3.06952186516		
1382		3.07025986504		
1383		3.0791871672		
1384		3.08134104961		
1385		3.08140442599		
1386		3.0816874592		
1387		3.08302377299		
1388		3.08379193591		
1389		3.08392261669		
1390		3.08571884593		
1391		3.08661795811		
1392		3.08835395046		
1393		3.08982489159		
1394		3.09018858447		
1395		3.09396954789		
1396		3.09398807624		
1397		3.09999439878		
1398		3.10022210255		
1399		3.10112679055		
1400		3.10122343102		
1401		3.10197464723		
1402		3.10244169669		
1403		3.10406362305		
1404		3.10526362698		
1405		3.10683418738		
1406		3.11018222125		
1407		3.11039773094		
1408		3.11068274387		
1409		3.11251108159		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1410		3.11387344184		
1411		3.11445828475		
1412		3.11890517271		
1413		3.11985115095		
1414		3.12138686644		
1415		3.12198919646		
1416		3.12328150297		
1417		3.12493559657		
1418		3.12517053086		
1419		3.12695344485		
1420		3.12912706897		
1421		3.12998547262		
1422		3.13090531134		
1423		3.13111710483		
1424		3.13177063813		
1425		3.13312421684		
1426		3.13337123972		
1427		3.13448507869		
1428		3.13485761648		
1429		3.13534077957		
1430		3.13733407709		
1431		3.13852154019		
1432		3.14178459468		
1433		3.14183832054		
1434		3.14229661434		
1435		3.14322201066		
1436		3.14333055893		
1437		3.14416918429		
1438		3.14529149961		
1439		3.14774176405		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1440		3.14870836556		
1441		3.14917536524		
1442		3.15148749258		
1443		3.15151035311		
1444		3.15220795949		
1445		3.15383361937		
1446		3.15481987174		
1447		3.15555770267		
1448		3.15637789256		
1449		3.1611751365		
1450		3.16168949562		
1451		3.16238940886		
1452		3.16584643415		
1453		3.16739913303		
1454		3.16754072455		
1455		3.16871365677		
1456		3.16886863634		
1457		3.16946673704		
1458		3.17260447381		
1459		3.1731647545		
1460		3.17406142394		
1461		3.1755292843		
1462		3.17819641115		
1463		3.17833669937		
1464		3.17970835068		
1465		3.18139285969		
1466		3.18268202074		
1467		3.18352572576		
1468		3.1836568711		
1469		3.18401613177		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1470		3.18777468414		
1471		3.18791980307		
1472		3.188805965		
1473		3.18968197227		
1474		3.19017169007		
1475		3.19146318184		
1476		3.19222684859		
1477		3.19417309155		
1478		3.19470131977		
1479		3.195771034		
1480		3.19715619694		
1481		3.19730467884		
1482		3.19750574384		
1483		3.19769134262		
1484		3.19791269934		
1485		3.19847967324		
1486		3.20041259493		
1487		3.20130906629		
1488		3.20141026603		
1489		3.20312578751		
1490		3.20343187467		
1491		3.20433084662		
1492		3.20459361469		
1493		3.20509035487		
1494		3.20532876875		
1495		3.20938857323		
1496		3.2104796389		
1497		3.21085312133		
1498		3.21323959822		
1499		3.21337055928		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1500		3.21464838089		
1501		3.21606756333		
1502		3.21733207124		
1503		3.21791690601		
1504		3.21893825194		
1505		3.21906856031		
1506		3.22072326488		
1507		3.22187399553		
1508		3.22264594041		
1509		3.2231736535		
1510		3.22431802295		
1511		3.22447396044		
1512		3.22503754979		
1513		3.22541405569		
1514		3.22548862088		
1515		3.22639155517		
1516		3.22738830656		
1517		3.22743895854		
1518		3.22796448099		
1519		3.22895372034		
1520		3.2292804619		
1521		3.22985850587		
1522		3.23139383642		
1523		3.23208143755		
1524		3.23211767772		
1525		3.23378900436		
1526		3.23387942905		
1527		3.23477240994		
1528		3.23622517321		
1529		3.23637917059		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1530		3.2364787481		
1531		3.23729396437		
1532		3.23804653241		
1533		3.23940013673		
1534		3.23951002685		
1535		3.24028534665		
1536		3.24213668533		
1537		3.24271150829		
1538		3.24291590927		
1539		3.24305012924		
1540		3.24338980524		
1541		3.24544927701		
1542		3.24554805747		
1543		3.24621037331		
1544		3.24921837633		
1545		3.24982340758		
1546		3.25027138134		
1547		3.25193856984		
1548		3.25358811712		
1549		3.25417886745		
1550		3.25491185568		
1551		3.2553296011		
1552		3.25639253491		
1553		3.25726118264		
1554		3.25883024555		
1555		3.2592421889		
1556		3.25948657758		
1557		3.2600047633		
1558		3.26158580286		
1559		3.26247332947		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1560		3.26513462072		
1561		3.26590968877		
1562		3.26648326692		
1563		3.26794919243		
1564		3.26828121579		
1565		3.26895952837		
1566		3.26969621778		
1567		3.27086512871		
1568		3.2736108395		
1569		3.27631282355		
1570		3.27652192981		
1571		3.27871133997		
1572		3.27998210955		
1573		3.28109194575		
1574		3.28186095453		
1575		3.28370070319		
1576		3.28408359941		
1577		3.28419801339		
1578		3.28522817182		
1579		3.28898597616		
1580		3.28956149312		
1581		3.29113245988		
1582		3.29336537		
1583		3.29428286199		
1584		3.29674107773		
1585		3.29721900806		
1586		3.29933494838		
1587		3.2994055815		
1588		3.29975706101		
1589		3.30223628869		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1590		3.30323504692		
1591		3.3047742362		
1592		3.30563254991		
1593		3.30589186801		
1594		3.30711765541		
1595		3.30946206868		
1596		3.30975134112		
1597		3.31143771433		
1598		3.31253462187		
1599		3.31341454076		
1600		3.31447899476		
1601		3.3150712495		
1602		3.31573699551		
1603		3.3164407497		
1604		3.31827835056		
1605		3.31952620281		
1606		3.32160433297		
1607		3.32173448596		
1608		3.32262946091		
1609		3.32359289943		
1610		3.32375344531		
1611		3.32537685915		
1612		3.32732219709		
1613		3.32741122774		
1614		3.32824451952		
1615		3.3287093219		
1616		3.3290098945		
1617		3.33012425934		
1618		3.33175977934		
1619		3.33248319312		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1620		3.33326179702		
1621		3.33504856545		
1622		3.33568960741		
1623		3.33588025552		
1624		3.33664106427		
1625		3.33701418814		
1626		3.33796141179		
1627		3.3395074583		
1628		3.33994749428		
1629		3.34110855337		
1630		3.3427942876		
1631		3.34352539418		
1632		3.34453710863		
1633		3.34504351549		
1634		3.34595235593		
1635		3.34678074871		
1636		3.34693244583		
1637		3.34698328686		
1638		3.34762004942		
1639		3.34792599125		
1640		3.34897729577		
1641		3.34913673433		
1642		3.34953792115		
1643		3.35153550251		
1644		3.3529457974		
1645		3.35301988468		
1646		3.35307450805		
1647		3.35331975128		
1648		3.35357405296		
1649		3.35466988938		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1650		3.35671808878		
1651		3.35810801566		
1652		3.35836124004		
1653		3.35907643874		
1654		3.36205018714		
1655		3.36288406035		
1656		3.36341729404		
1657		3.36407593313		
1658		3.36479189802		
1659		3.36525567256		
1660		3.36537162658		
1661		3.36643994392		
1662		3.36660990595		
1663		3.36689840767		
1664		3.3683025148		
1665		3.36830577461		
1666		3.36943810056		
1667		3.37039003176		
1668		3.37080932616		
1669		3.37184713746		
1670		3.37241759596		
1671		3.37347472104		
1672		3.37363518589		
1673		3.37366146339		
1674		3.37504841637		
1675		3.375137208		
1676		3.37700515134		
1677		3.37730551205		
1678		3.37953552792		
1679		3.38103533394		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1680		3.38204592576		
1681		3.38214395047		
1682		3.38229646698		
1683		3.38356721671		
1684		3.38438827951		
1685		3.38606969661		
1686		3.38632743125		
1687		3.38884209818		
1688		3.39031383242		
1689		3.3910856827		
1690		3.394655192		
1691		3.39493408407		
1692		3.39629565727		
1693		3.39819407524		
1694		3.39872157038		
1695		3.39922961099		
1696		3.39973617738		
1697		3.40193321635		
1698		3.40342600998		
1699		3.40354856625		
1700		3.40431443999		
1701		3.40545714264		
1702		3.40646733587		
1703		3.40649504338		
1704		3.40899047736		
1705		3.4092702487		
1706		3.40943774636		
1707		3.41105290666		
1708		3.41619507395		
1709		3.41633915325		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1710		3.41817642109		
1711		3.41972168316		
1712		3.4218463001		
1713		3.42215139637		
1714		3.42221197124		
1715		3.42233676563		
1716		3.42348261123		
1717		3.42355659162		
1718		3.42381661864		
1719		3.42395520327		
1720		3.42415041121		
1721		3.42498892571		
1722		3.42732573832		
1723		3.42844416175		
1724		3.42985864922		
1725		3.43134324145		
1726		3.43216014475		
1727		3.4323009667		
1728		3.43432819629		
1729		3.43484836082		
1730		3.43507788703		
1731		3.43566538876		
1732		3.43647148617		
1733		3.43655105986		
1734		3.43784677666		
1735		3.43844331314		
1736		3.4415827803		
1737		3.44374316583		
1738		3.44409088453		
1739		3.44821144335		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1740		3.449780747		
1741		3.45023009883		
1742		3.45366485237		
1743		3.45516825876		
1744		3.45702010827		
1745		3.45791866139		
1746		3.45879306457		
1747		3.45953419142		
1748		3.46038713861		
1749		3.46644011739		
1750		3.46667150634		
1751		3.4680361135		
1752		3.47236006741		
1753		3.47322834399		
1754		3.47334188314		
1755		3.47566554466		
1756		3.47793911803		
1757		3.47821879207		
1758		3.47868218976		
1759		3.48098166924		
1760		3.48149637629		
1761		3.48186955596		
1762		3.48558521095		
1763		3.4863942861		
1764		3.48800941047		
1765		3.4896948159		
1766		3.49108622606		
1767		3.49886895872		
1768		3.50036995202		
1769		3.50148159318		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1770		3.50170103189		
1771		3.50187512397		
1772		3.50507696783		
1773		3.50613317585		
1774		3.50619101807		
1775		3.51128162693		
1776		3.51165077237		
1777		3.51183477532		
1778		3.5129198575		
1779		3.51946035375		
1780		3.52130897649		
1781		3.52256951635		
1782		3.52305552932		
1783		3.525274655		
1784		3.52652730398		
1785		3.52705207576		
1786		3.52719331261		
1787		3.52826157796		
1788		3.5293205409		
1789		3.52987743207		
1790		3.5304467716		
1791		3.53699072926		
1792		3.54023226204		
1793		3.54042992213		
1794		3.54134012287		
1795		3.54257702041		
1796		3.54372037715		
1797		3.54407836465		
1798		3.54434618486		
1799		3.54722718739		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1800		3.54784929974		
1801		3.54833877828		
1802		3.54989012834		
1803		3.54994727875		
1804		3.55145644408		
1805		3.55253589919		
1806		3.55337483851		
1807		3.55482649897		
1808		3.55681375223		
1809		3.55803629512		
1810		3.5607332703		
1811		3.56150522901		
1812		3.56307637713		
1813		3.56335296729		
1814		3.56397463485		
1815		3.56570820404		
1816		3.56795449983		
1817		3.5686755852		
1818		3.56994430091		
1819		3.57041089194		
1820		3.57107498334		
1821		3.57175407311		
1822		3.57449951568		
1823		3.57474208897		
1824		3.57497040076		
1825		3.5751349282		
1826		3.57774430207		
1827		3.57891686155		
1828		3.57959712224		
1829		3.58000230754		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1830		3.58137109368		
1831		3.5819803746		
1832		3.58212735911		
1833		3.58352627486		
1834		3.58422978366		
1835		3.58429972938		
1836		3.58474741293		
1837		3.58823050638		
1838		3.59163587925		
1839		3.59264810676		
1840		3.59331416318		
1841		3.59347329615		
1842		3.5945671289		
1843		3.5979248493		
1844		3.59933011621		
1845		3.60159455318		
1846		3.60220174856		
1847		3.60374151695		
1848		3.60415198862		
1849		3.60622467244		
1850		3.60935000472		
1851		3.60985007191		
1852		3.61127945821		
1853		3.61164760779		
1854		3.61452374559		
1855		3.6148993622		
1856		3.61499223527		
1857		3.61772576354		
1858		3.61806821007		
1859		3.61944184172		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1860		3.61944244429		
1861		3.62075682914		
1862		3.62290287181		
1863		3.62424138921		
1864		3.62455209706		
1865		3.62479628623		
1866		3.62824703508		
1867		3.63137351229		
1868		3.63306804159		
1869		3.63348599773		
1870		3.63554826178		
1871		3.63702104945		
1872		3.63814573783		
1873		3.63827456837		
1874		3.63908481556		
1875		3.64036412742		
1876		3.64199355067		
1877		3.64422881062		
1878		3.64475859099		
1879		3.64586587032		
1880		3.64650774979		
1881		3.6466163773		
1882		3.64702496078		
1883		3.64927286173		
1884		3.65096799743		
1885		3.65098985108		
1886		3.65299099411		
1887		3.65410269223		
1888		3.65540227072		
1889		3.65670269501		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1890		3.65718388383		
1891		3.65779263242		
1892		3.6585620986		
1893		3.65910772629		
1894		3.65976052797		
1895		3.66019980426		
1896		3.66319812989		
1897		3.66418935675		
1898		3.66603596927		
1899		3.66689018156		
1900		3.66856611387		
1901		3.67198609723		
1902		3.67228398046		
1903		3.6729293651		
1904		3.67475542436		
1905		3.67798420138		
1906		3.67922778795		
1907		3.67950205		
1908		3.67975481164		
1909		3.68111763677		
1910		3.68174349231		
1911		3.68485718473		
1912		3.686611531		
1913		3.68778601026		
1914		3.68819777698		
1915		3.68825468278		
1916		3.68944275702		
1917		3.6905604784		
1918		3.69081115228		
1919		3.69224056222		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1920		3.69350262474		
1921		3.69395563921		
1922		3.694117419		
1923		3.69483526671		
1924		3.6958101539		
1925		3.69667673859		
1926		3.69907940003		
1927		3.70079270626		
1928		3.70163789659		
1929		3.70397267319		
1930		3.70440522329		
1931		3.70581750199		
1932		3.7063272461		
1933		3.70651177526		
1934		3.70751701708		
1935		3.70844066122		
1936		3.70904651627		
1937		3.70938659423		
1938		3.71012869207		
1939		3.71217926571		
1940		3.7138653068		
1941		3.71406057775		
1942		3.7142698595		
1943		3.7157901363		
1944		3.71631220473		
1945		3.71686271371		
1946		3.71729712795		
1947		3.71856193566		
1948		3.72029575676		
1949		3.72302653471		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1950		3.72314871471		
1951		3.72369084087		
1952		3.72420388386		
1953		3.72510223144		
1954		3.72769469257		
1955		3.72802510118		
1956		3.72881691487		
1957		3.72962826621		
1958		3.72975538335		
1959		3.72976687638		
1960		3.73118391612		
1961		3.73126892009		
1962		3.7331195334		
1963		3.7343156434		
1964		3.73438173568		
1965		3.73670839785		
1966		3.73990062024		
1967		3.74028012905		
1968		3.74063007182		
1969		3.74067931132		
1970		3.7439479286		
1971		3.74437353038		
1972		3.74596777312		
1973		3.74898357094		
1974		3.74946788315		
1975		3.75113465477		
1976		3.75235915827		
1977		3.75263970661		
1978		3.75406508305		
1979		3.75468921295		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
1980		3.75667475969		
1981		3.75668862945		
1982		3.75722814202		
1983		3.757713992		
1984		3.75986653146		
1985		3.75990053462		
1986		3.75990070787		
1987		3.76002570625		
1988		3.76155384469		
1989		3.76485159803		
1990		3.76568098731		
1991		3.76607925979		
1992		3.76733918152		
1993		3.76929086197		
1994		3.77014233144		
1995		3.77077252906		
1996		3.77124372334		
1997		3.77173062099		
1998		3.77407979869		
1999		3.77435910902		
2000		3.77747445305		
2001		3.77799730805		
2002		3.77966076817		
2003		3.77997806088		
2004		3.78478050863		
2005		3.78530659307		
2006		3.78537436809		
2007		3.78887327068		
2008		3.78914135811		
2009		3.78993365934		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2010		3.79031301126		
2011		3.79048573271		
2012		3.79407615949		
2013		3.79421343839		
2014		3.7976925962		
2015		3.79914098441		
2016		3.79982534734		
2017		3.80076876201		
2018		3.804695536		
2019		3.80494153491		
2020		3.80511898068		
2021		3.80904392135		
2022		3.8092798112		
2023		3.81214903611		
2024		3.81366039196		
2025		3.81546373405		
2026		3.81944267662		
2027		3.821409679		
2028		3.8219868693		
2029		3.82352650819		
2030		3.82362650169		
2031		3.82552143587		
2032		3.82882982195		
2033		3.8294999636		
2034		3.8324593114		
2035		3.83610113082		
2036		3.83783324611		
2037		3.83783602582		
2038		3.83860292134		
2039		3.84320023286		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2040		3.84837272846		
2041		3.84870047216		
2042		3.850132495		
2043		3.8529289633		
2044		3.85401855821		
2045		3.85487443291		
2046		3.85647243965		
2047		3.85744749162		
2048		3.86037109781		
2049		3.86215065997		
2050		3.86572353987		
2051		3.86698553742		
2052		3.86952918771		
2053		3.87714496807		
2054		3.87746703004		
2055		3.88314771521		
2056		3.88438622584		
2057		3.8859083037		
2058		3.88806694423		
2059		3.89111220849		
2060		3.89301522993		
2061		3.8942158449		
2062		3.89645112127		
2063		3.89764969808		
2064		3.90019846105		
2065		3.90273972665		
2066		3.90423045457		
2067		3.90578676388		
2068		3.91178672368		
2069		3.91200956957		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2070		3.91213676482		
2071		3.9169656632		
2072		3.91837582215		
2073		3.91895208446		
2074		3.92028300526		
2075		3.92157508771		
2076		3.92809639303		
2077		3.92980972722		
2078		3.93110576307		
2079		3.93277186641		
2080		3.93343519508		
2081		3.93413820437		
2082		3.93919849258		
2083		3.93971140677		
2084		3.94824914742		
2085		3.95155608478		
2086		3.95224281963		
2087		3.95678687389		
2088		3.95789986427		
2089		3.95938202267		
2090		3.96418254783		
2091		3.96472586249		
2092		3.96849777251		
2093		3.96857683855		
2094		3.96932301514		
2095		3.97039300271		
2096		3.97175992326		
2097		3.97770311454		
2098		3.98027461708		
2099		3.98510137378		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2100		3.98653561911		
2101		3.98775757729		
2102		3.98845394168		
2103		3.9893722539		
2104		3.99287724109		
2105		3.99543831616		
2106		3.99819247236		
2107		3.99855765927		
2108		** 4.0		
2109		** 4.0		
2110		4.00805667891		
2111		4.00998888307		
2112		4.01581634954		
2113		4.01793694453		
2114		4.01814554877		
2115		4.02499275839		
2116		4.02525040749		
2117		4.02575586558		
2118		4.02600352397		
2119		4.03066794096		
2120		4.03134289186		
2121		4.03256630286		
2122		4.03282520117		
2123		4.03987941887		
2124		4.04121041659		
2125		4.04143775175		
2126		4.04167853244		
2127		4.04309491188		
2128		4.05016351276		
2129		4.05187811239		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2130		4.05967733716		
2131		4.05985600276		
2132		4.06045777054		
2133		4.06763264374		
2134		4.06776305618		
2135		4.06935111444		
2136		4.06941927448		
2137		4.07972957262		
2138		4.08320745355		
2139		4.08743734695		
2140		4.08872741012		
2141		4.0888519865		
2142		4.08897811044		
2143		4.09048988139		
2144		4.09063682623		
2145		4.09264290068		
2146		4.09451229916		
2147		4.09498491159		
2148		4.09743242637		
2149		4.10036888179		
2150		4.10116480713		
2151		4.10283315703		
2152		4.10460828762		
2153		4.10500034232		
2154		4.10548426253		
2155		4.10560980817		
2156		4.10997525734		
2157		4.11388982329		
2158		4.11474697437		
2159		4.11515080767		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2160		4.1178069677		
2161		4.12002478643		
2162		4.12152073737		
2163		4.12167453979		
2164		4.12387698941		
2165		4.1280622837		
2166		4.12944175435		
2167		4.13220901594		
2168		4.13227345955		
2169		4.13765707717		
2170		4.13862470579		
2171		4.14207555452		
2172		4.14342017542		
2173		4.14706798277		
2174		4.1491899261		
2175		4.15354803733		
2176		4.16127978505		
2177		4.16245654437		
2178		4.16691405844		
2179		4.17529925533		
2180		4.17785040788		
2181		4.18426255366		
2182		4.18521154247		
2183		4.18999668122		
2184		4.19104335676		
2185		4.19451290983		
2186		4.19618104341		
2187		4.19624464572		
2188		4.19720433752		
2189		4.20304784768		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2190		4.20564440767		
2191		4.21193453676		
2192		4.21281779209		
2193		4.21303549507		
2194		4.21426511091		
2195		4.21480074183		
2196		4.21582498983		
2197		4.21650059759		
2198		4.21872101267		
2199		4.22027046277		
2200		4.22092434079		
2201		4.22191777509		
2202		4.22889429499		
2203		4.2316047203		
2204		4.23199573406		
2205		4.23307779675		
2206		4.23864505151		
2207		4.24141554293		
2208		4.24460022479		
2209		4.24918309382		
2210		4.2506470167		
2211		4.25286221236		
2212		4.25612896595		
2213		4.25690671234		
2214		4.25819850124		
2215		4.26304997462		
2216		4.26513056913		
2217		4.2655368084		
2218		4.26576640309		
2219		4.26777879831		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2220		4.27084539362		
2221		4.27105289233		
2222		4.27174778773		
2223		4.27554967285		
2224		4.27557466239		
2225		4.27689973699		
2226		4.2800810283		
2227		4.28014721369		
2228		4.28783605905		
2229		4.29110560398		
2230		4.29329827538		
2231		4.29468898498		
2232		4.29545283817		
2233		4.29643473794		
2234		4.29723916409		
2235		4.29803149585		
2236		4.2995276067		
2237		4.3012118172		
2238		4.30624721627		
2239		4.30766689191		
2240		4.30821752373		
2241		4.30865124416		
2242		4.30876584246		
2243		4.30986753542		
2244		4.31239577018		
2245		4.31373972346		
2246		4.31423604256		
2247		4.31527181479		
2248		4.31537166855		
2249		4.31671325322		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2250		4.31871276589		
2251		4.31882131606		
2252		4.32005087048		
2253		4.32079091826		
2254		4.3239194924		
2255		4.32598985191		
2256		4.32692468086		
2257		4.33015807627		
2258		4.33051267016		
2259		4.33121369763		
2260		4.33716733532		
2261		4.33732035319		
2262		4.34153981645		
2263		4.34290045854		
2264		4.34617813698		
2265		4.34647830534		
2266		4.34715367014		
2267		4.34868737275		
2268		4.35112651259		
2269		4.35171471		
2270		4.35182819795		
2271		4.35364382299		
2272		4.35441331323		
2273		4.35618733012		
2274		4.35647871025		
2275		4.35680840927		
2276		4.36187663602		
2277		4.36295773039		
2278		4.36448666145		
2279		4.36708125063		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2280		4.36842252979		
2281		4.36996972712		
2282		4.37021695108		
2283		4.3718245952		
2284		4.3735665745		
2285		4.37643078965		
2286		4.37669264685		
2287		4.37733393633		
2288		4.37819436702		
2289		4.3786116125		
2290		4.37993154255		
2291		4.38133128678		
2292		4.38595958042		
2293		4.38631992698		
2294		4.38900133277		
2295		4.39087676429		
2296		4.39148669647		
2297		4.39394568329		
2298		4.39462279397		
2299		4.39543206899		
2300		4.39643550935		
2301		4.39800321922		
2302		4.39943607827		
2303		4.40040636239		
2304		4.40338219141		
2305		4.40477780735		
2306		4.40480046722		
2307		4.40571796881		
2308		4.41305561273		
2309		4.41334174326		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2310		4.41365370209		
2311		4.41376417434		
2312		4.41703966292		
2313		4.41900904154		
2314		4.42018942175		
2315		4.42077231703		
2316		4.42277450771		
2317		4.42630415025		
2318		4.42797916736		
2319		4.42986683984		
2320		4.4299645892		
2321		4.43149188928		
2322		4.43204281925		
2323		4.43214661401		
2324		4.43525150615		
2325		4.43531611895		
2326		4.43953187073		
2327		4.4408274151		
2328		4.44266379109		
2329		4.44706465074		
2330		4.44709694094		
2331		4.44827462844		
2332		4.44885255031		
2333		4.45014088687		
2334		4.45099111765		
2335		4.45257105461		
2336		4.45291089058		
2337		4.45424150059		
2338		4.45541810225		
2339		4.45546546934		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2340		4.45622099579		
2341		4.45633492614		
2342		4.45812019908		
2343		4.45840674221		
2344		4.45945713483		
2345		4.45962590359		
2346		4.46096754787		
2347		4.46217264513		
2348		4.46233286943		
2349		4.46360646827		
2350		4.46501427637		
2351		4.46669684761		
2352		4.46715796367		
2353		4.46807778203		
2354		4.46822442426		
2355		4.46906095298		
2356		4.47019045702		
2357		4.47178759753		
2358		4.47288585745		
2359		4.47483817019		
2360		4.47643263791		
2361		4.47832050572		
2362		4.47840398057		
2363		4.47973778626		
2364		4.48124074261		
2365		4.48157653373		
2366		4.48224441658		
2367		4.48375148278		
2368		4.48441881346		
2369		4.4868120382		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2370		4.48701554273		
2371		4.48882423878		
2372		4.48912583985		
2373		4.49099026855		
2374		4.49224295371		
2375		4.49235962895		
2376		4.49458257076		
2377		4.49530348336		
2378		4.49983994378		
2379		4.50042636425		
2380		4.50094384062		
2381		4.50287386042		
2382		4.50657366912		
2383		4.50965382495		
2384		4.50980027397		
2385		4.51158718055		
2386		4.51236871715		
2387		4.51297742206		
2388		4.51339346227		
2389		4.51347964148		
2390		4.51458632867		
2391		4.51460627699		
2392		4.52050753035		
2393		4.52157126665		
2394		4.52198670883		
2395		4.52244395766		
2396		4.52255713952		
2397		4.52338381635		
2398		4.52353473237		
2399		4.52593818137		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2400		4.52685091818		
2401		4.52763183064		
2402		4.52847231867		
2403		4.5302845495		
2404		4.53213457706		
2405		4.53276270344		
2406		4.53332325765		
2407		4.53423502268		
2408		4.5346997865		
2409		4.53611990324		
2410		4.54008910174		
2411		4.54116802048		
2412		4.54450608603		
2413		4.54693714676		
2414		4.54805441314		
2415		4.54820501493		
2416		4.54921094806		
2417		4.55060386284		
2418		4.5516070579		
2419		4.55359051095		
2420		4.55386541029		
2421		4.5564828779		
2422		4.55867984451		
2423		4.5596386855		
2424		4.56019084293		
2425		4.56196088788		
2426		4.56374117147		
2427		4.56608673731		
2428		4.56818911408		
2429		4.56942185447		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2430		4.56950614738		
2431		4.56991999024		
2432		4.57182600373		
2433		4.57551632647		
2434		4.57604983273		
2435		4.57673955129		
2436		4.57825635922		
2437		4.58247188122		
2438		4.58247508439		
2439		4.58294336388		
2440		4.58447291293		
2441		4.58578643763		
2442		4.58752056824		
2443		4.58777521967		
2444		4.59083120642		
2445		4.59200552376		
2446		4.59386935612		
2447		4.59503436941		
2448		4.59692938698		
2449		4.59747967653		
2450		4.59890480479		
2451		4.59928823632		
2452		4.6030115212		
2453		4.60435879808		
2454		4.60724280268		
2455		4.60755572235		
2456		4.60803988482		
2457		4.60807704658		
2458		4.61162860272		
2459		4.61670998934		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2460		4.61708709875		
2461		4.61744895962		
2462		4.61959301612		
2463		4.6229741331		
2464		4.62326643261		
2465		4.62494610625		
2466		4.62652873714		
2467		4.6273308139		
2468		4.62842686277		
2469		4.62926494881		
2470		4.63089965724		
2471		4.63142798016		
2472		4.63364990769		
2473		4.63422673161		
2474		4.63931569066		
2475		4.64097386054		
2476		4.64163628548		
2477		4.64207237873		
2478		4.6421727498		
2479		4.64226395056		
2480		4.64636159402		
2481		4.64727155348		
2482		4.64747410587		
2483		4.64815431792		
2484		4.64849731389		
2485		4.649079042		
2486		4.64983500985		
2487		4.65054069486		
2488		4.6515656224		
2489		4.65175267785		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2490		4.65306846151		
2491		4.6552739736		
2492		4.65532329124		
2493		4.65856481536		
2494		4.65918223514		
2495		4.66122426933		
2496		4.66185973754		
2497		4.66196012172		
2498		4.6629939673		
2499		4.6649475433		
2500		4.66649660641		
2501		4.66753136315		
2502		4.66815318516		
2503		4.66956296612		
2504		4.67057196547		
2505		4.67180654913		
2506		4.67260386563		
2507		4.67379526127		
2508		4.67544210591		
2509		4.67607793021		
2510		4.67618638315		
2511		4.67797524156		
2512		4.67837390538		
2513		4.68019461625		
2514		4.68023633473		
2515		4.68122346556		
2516		4.6815052066		
2517		4.68584218608		
2518		4.68628579957		
2519		4.68818904394		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2520		4.68859497303		
2521		4.68896535697		
2522		4.6897073294		
2523		4.69014721342		
2524		4.69176618849		
2525		4.69292232119		
2526		4.69535217939		
2527		4.69567757223		
2528		4.69606707546		
2529		4.69780946428		
2530		4.69790427128		
2531		4.69807654152		
2532		4.69919119578		
2533		4.70063672802		
2534		4.70183533718		
2535		4.7028517294		
2536		4.70382439251		
2537		4.70413493773		
2538		4.70438985045		
2539		4.70443005956		
2540		4.70972994745		
2541		4.70985290806		
2542		4.71027504599		
2543		4.71122367327		
2544		4.71320775719		
2545		4.71563276067		
2546		4.71596798159		
2547		4.71631227434		
2548		4.71647648383		
2549		4.71658185867		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2550		4.71706507923		
2551		4.71757295802		
2552		4.71950441859		
2553		4.72043891612		
2554		4.72230536313		
2555		4.72356856369		
2556		4.72563630697		
2557		4.72763000425		
2558		4.7279682249		
2559		4.72949820588		
2560		4.72990654701		
2561		4.72994957966		
2562		4.72999297402		
2563		4.73172798789		
2564		4.73242871576		
2565		4.73355046511		
2566		4.73364019369		
2567		4.73467511579		
2568		4.73664781485		
2569		4.73692991427		
2570		4.73973829001		
2571		4.74042542403		
2572		4.74049456353		
2573		4.74442084988		
2574		4.74559094273		
2575		4.74602759736		
2576		4.74612608562		
2577		4.74775581141		
2578		4.7513525181		
2579		4.75297599102		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2580		4.75390925548		
2581		4.7542383993		
2582		4.75905833232		
2583		4.75934108735		
2584		4.75950099757		
2585		4.76408244645		
2586		4.76497091326		
2587		4.76652176016		
2588		4.76669295096		
2589		4.76974090826		
2590		4.77086161832		
2591		4.77572436564		
2592		4.77925120898		
2593		4.77949413592		
2594		4.78356738513		
2595		4.7839042958		
2596		4.78604907239		
2597		4.78715790889		
2598		4.79292213245		
2599		4.79904814258		
2600		4.8023616929		
2601		4.80282335817		
2602		4.80289371215		
2603		4.80544923301		
2604		4.80672723932		
2605		4.81371415128		
2606		4.8146264036		
2607		4.8151343646		
2608		4.81670135498		
2609		4.8170063398		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2610		4.82110782821		
2611		4.82479177993		
2612		4.82523289783		
2613		4.82621273551		
2614		4.83428140095		
2615		4.83480977068		
2616		4.83729080575		
2617		4.83731126407		
2618		4.8379681531		
2619		4.8423550361		
2620		4.84881884168		
2621		4.84902055356		
2622		4.84936636978		
2623		4.85060447845		
2624		4.8532022661		
2625		4.85351540297		
2626		4.85459398679		
2627		4.85537326613		
2628		4.85781441156		
2629		4.8586616498		
2630		4.86012290592		
2631		4.86233630076		
2632		4.86441927561		
2633		4.86852617289		
2634		4.86891810819		
2635		4.87084406139		
2636		4.87382795321		
2637		4.87466291211		
2638		4.87473314084		
2639		4.87588504686		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2640		4.87631668464		
2641		4.87844010472		
2642		4.87868809445		
2643		4.880592541		
2644		4.88170175713		
2645		4.88330711881		
2646		4.88409039851		
2647		4.88531050872		
2648		4.89300295935		
2649		4.89563166956		
2650		4.8960672673		
2651		4.89938358287		
2652		4.90257966838		
2653		4.90324491078		
2654		4.90590966568		
2655		4.90592217814		
2656		4.90778408984		
2657		4.90872617288		
2658		4.91078674184		
2659		4.91222768203		
2660		4.91395612707		
2661		4.91473992814		
2662		4.91525014378		
2663		4.91614646688		
2664		4.91892742519		
2665		4.92051004725		
2666		4.92139394163		
2667		4.92152353421		
2668		4.92161884099		
2669		4.92225902007		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2670		4.92749536392		
2671		4.92774288172		
2672		4.92858627752		
2673		4.93182270798		
2674		4.93207066682		
2675		4.93265629936		
2676		4.93288307857		
2677		4.9345416237		
2678		4.93465967298		
2679		4.93584134088		
2680		4.93700562267		
2681		4.93955205761		
2682		4.93980069632		
2683		4.93992797498		
2684		4.94296633253		
2685		4.94312178566		
2686		4.94547890869		
2687		4.94684237508		
2688		4.94736353698		
2689		4.94740236409		
2690		4.94882500386		
2691		4.94887530948		
2692		4.95355857808		
2693		4.9543646803		
2694		4.9565517346		
2695		4.95659233937		
2696		4.95779630706		
2697		4.96015997173		
2698		4.96058111944		
2699		4.96143249503		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2700		4.96203836772		
2701		4.96267288307		
2702		4.96595401261		
2703		4.96599521807		
2704		4.96789003728		
2705		4.96897072169		
2706		4.9691319909		
2707		4.96935949679		
2708		4.96940502617		
2709		4.96982253233		
2710		4.9749843201		
2711		4.97609939706		
2712		4.97783494729		
2713		4.97798763113		
2714		4.97872895395		
2715		4.97912007419		
2716		4.97957829877		
2717		4.97974709493		
2718		4.98074765109		
2719		4.98179155625		
2720		4.98212503007		
2721		4.98252631621		
2722		4.98335982309		
2723		4.98428806567		
2724		4.98599354081		
2725		4.98624177107		
2726		4.98625345373		
2727		4.98769253903		
2728		4.98875519993		
2729		4.99050984103		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2730		4.99124143739		
2731		4.99186982481		
2732		4.99207693205		
2733		4.99336506333		
2734		4.99380783112		
2735		4.99443559345		
2736		4.99456519672		
2737		4.99515115591		
2738		4.99592030627		
2739		4.99674573638		
2740		4.99681228948		
2741		4.99723601895		
2742		4.99723619825		
2743		4.9982907522		
2744		4.99960408914		
2745		4.99987532456		
2746		5.00000331187		
2747		5.00139571185		
2748		5.00144368661		
2749		5.00286388755		
2750		5.00288974696		
2751		5.00541825858		
2752		5.00551527304		
2753		5.00991684743		
2754		5.01120821592		
2755		5.01141537763		
2756		5.01294300452		
2757		5.01516675654		
2758		5.01522979733		
2759		5.01532042965		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2760		5.01801614214		
2761		5.01847637174		
2762		5.01941320709		
2763		5.02070830999		
2764		5.02108313083		
2765		5.02143159161		
2766		5.0229714974		
2767		5.02315028924		
2768		5.02385664004		
2769		5.02565014416		
2770		5.02616265324		
2771		5.02646253095		
2772		5.02785546004		
2773		5.02938780151		
2774		5.02959640678		
2775		5.03235310457		
2776		5.03306989232		
2777		5.03359754813		
2778		5.03360185099		
2779		5.03368999137		
2780		5.03403068623		
2781		5.03502248816		
2782		5.03696496566		
2783		5.04027034639		
2784		5.04069045345		
2785		5.04287618711		
2786		5.04394021119		
2787		5.04446619078		
2788		5.04532692443		
2789		5.04658341307		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2790		5.04784979307		
2791		5.05014526617		
2792		5.0526612048		
2793		5.05353537148		
2794		5.0555340483		
2795		5.05557892399		
2796		5.05670756912		
2797		5.05716953741		
2798		5.06252900586		
2799		5.06375650719		
2800		5.06683637615		
2801		5.06786650611		
2802		5.06802124177		
2803		5.07076132557		
2804		5.07194086507		
2805		5.07269994221		
2806		5.07454927361		
2807		5.07529163189		
2808		5.07776717698		
2809		5.07980157108		
2810		5.08049476959		
2811		5.08180459871		
2812		5.0819195875		
2813		5.08421728595		
2814		5.08769732252		
2815		5.09039053719		
2816		5.09229102287		
2817		5.09371676223		
2818		5.09828369988		
2819		5.0991448471		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2820		5.09920305671		
2821		5.10126079919		
2822		5.10232162924		
2823		5.10243895839		
2824		5.10302013325		
2825		5.10313650527		
2826		5.10548407996		
2827		5.10583945214		
2828		5.10827844563		
2829		5.11033459632		
2830		5.11072441878		
2831		5.11091642262		
2832		5.11236115695		
2833		5.11345964		
2834		5.11349017955		
2835		5.11695170319		
2836		5.11723234613		
2837		5.11866529602		
2838		5.11945833746		
2839		5.11960461759		
2840		5.12227068599		
2841		5.12548122252		
2842		5.12581117865		
2843		5.12622900085		
2844		5.12919846327		
2845		5.13042052424		
2846		5.13306762973		
2847		5.13347109613		
2848		5.13381028196		
2849		5.1341731869		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2850		5.13418319209		
2851		5.13540078094		
2852		5.1383485641		
2853		5.13842389669		
2854		5.13972238111		
2855		5.14106483886		
2856		5.14138670903		
2857		5.14244260339		
2858		5.14409852536		
2859		5.14411183806		
2860		5.14446312551		
2861		5.14486869938		
2862		5.14495684981		
2863		5.14555728418		
2864		5.14715796467		
2865		5.14880817432		
2866		5.15115629767		
2867		5.1516431974		
2868		5.15325939226		
2869		5.15362297211		
2870		5.15440829972		
2871		5.15570038272		
2872		5.15669358049		
2873		5.15852056272		
2874		5.1590113545		
2875		5.15904195623		
2876		5.16167455321		
2877		5.16230322456		
2878		5.16336652035		
2879		5.16477574041		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2880		5.16694356724		
2881		5.16868717814		
2882		5.17011189339		
2883		5.17066476534		
2884		5.17121658417		
2885		5.17134892742		
2886		5.17227068648		
2887		5.17309957133		
2888		5.17387656644		
2889		5.17392206946		
2890		5.17407425043		
2891		5.17745867101		
2892		5.18032931158		
2893		5.18423642206		
2894		5.18469341183		
2895		5.18756382481		
2896		5.18848111896		
2897		5.19172714429		
2898		5.19185967153		
2899		5.19269487775		
2900		5.19377330441		
2901		5.19441283499		
2902		5.19488365334		
2903		5.19652099828		
2904		5.19660939941		
2905		5.19859255572		
2906		5.19936055687		
2907		5.20379143061		
2908		5.20716961424		
2909		5.20738744342		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2910		5.20854875248		
2911		5.20887317879		
2912		5.21178882954		
2913		5.21241396816		
2914		5.21306902473		
2915		5.21385830588		
2916		5.21387149143		
2917		5.21532962939		
2918		5.21790901104		
2919		5.21895318864		
2920		5.21983849786		
2921		5.22008644328		
2922		5.22069542985		
2923		5.22349880792		
2924		5.22580841659		
2925		5.2277945649		
2926		5.22828016082		
2927		5.22975293208		
2928		5.23057719192		
2929		5.23331774906		
2930		5.23521901846		
2931		5.23675417654		
2932		5.23891270756		
2933		5.24092908254		
2934		5.24132872442		
2935		5.24180676624		
2936		5.24637313571		
2937		5.24654663857		
2938		5.24674818992		
2939		5.24844506404		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2940		5.24909229705		
2941		5.25081898204		
2942		5.25228262693		
2943		5.25280825044		
2944		5.25384925638		
2945		5.25411741133		
2946		5.25472867079		
2947		5.25587583542		
2948		5.25672931334		
2949		5.25761972905		
2950		5.25862215603		
2951		5.25881501717		
2952		5.26202059953		
2953		5.26317271724		
2954		5.26414983564		
2955		5.26946297478		
2956		5.27170205036		
2957		5.27265542811		
2958		5.27269652861		
2959		5.27300217233		
2960		5.27687220744		
2961		5.27808334335		
2962		5.2783876931		
2963		5.28160345322		
2964		5.28160523327		
2965		5.28261587203		
2966		5.28417233566		
2967		5.28489487633		
2968		5.28746794614		
2969		5.28759911421		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
2970		5.28858318239		
2971		5.28926706108		
2972		5.29223946583		
2973		5.29432345537		
2974		5.29527055239		
2975		5.29736853662		
2976		5.2990467016		
2977		5.2998070268		
2978		5.30448162208		
2979		5.30507988504		
2980		5.306109032		
2981		5.30625239287		
2982		5.30725881686		
2983		5.30835013429		
2984		5.30945309402		
2985		5.31312314628		
2986		5.31502684528		
2987		5.31609118315		
2988		5.31775561184		
2989		5.32056770343		
2990		5.32111281247		
2991		5.32201497987		
2992		5.32259153317		
2993		5.32397414895		
2994		5.32416484736		
2995		5.32600106554		
2996		5.32724850412		
2997		5.33238942281		
2998		5.33344847369		
2999		5.33528290864		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3000		5.33760518787		
3001		5.33815765762		
3002		5.34088846801		
3003		5.34386449708		
3004		5.3473016597		
3005		5.34866348814		
3006		5.34939192354		
3007		5.35056734476		
3008		5.35398400376		
3009		5.35574195855		
3010		5.35734435169		
3011		5.36260993964		
3012		5.36302447324		
3013		5.36322226248		
3014		5.36769543061		
3015		5.36847346849		
3016		5.3706983001		
3017		5.37155982846		
3018		5.37287803076		
3019		5.37423485961		
3020		5.37457791363		
3021		5.37674037893		
3022		5.38233011682		
3023		5.38278907579		
3024		5.38653120871		
3025		5.3892265151		
3026		5.39390684673		
3027		5.39611106888		
3028		5.39765916182		
3029		5.40035112242		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3030		5.40127137835		
3031		5.40144169304		
3032		5.40645235195		
3033		5.40976956736		
3034		5.41214600678		
3035		5.41930902357		
3036		5.42302788649		
3037		5.43563738982		
3038		5.43583527323		
3039		5.43661086073		
3040		5.43709706565		
3041		5.4387533776		
3042		5.44383622931		
3043		5.44617890695		
3044		5.44797383562		
3045		5.45069486855		
3046		5.4526643878		
3047		5.45590021947		
3048		5.45720641226		
3049		5.46334604033		
3050		5.46457752268		
3051		5.4668226271		
3052		5.47062512255		
3053		5.47087691586		
3054		5.47105459308		
3055		5.47170529548		
3056		5.4788880264		
3057		5.4830631701		
3058		5.48609177947		
3059		5.48624888359		

<b>Klein Bottle Horizontal Glued Identifications</b>					
	Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3060			5.48976189226		
3061			5.4913232841		
3062			5.49490503716		
3063			5.5042707794		
3064			5.50654394679		
3065			5.51023585155		
3066			5.51281356665		
3067			5.51575340582		
3068			5.51576692552		
3069			5.51589302601		
3070			5.51777818923		
3071			5.51805687615		
3072			5.52137427065		
3073			5.52276335632		
3074			5.52367395739		
3075			5.5241629621		
3076			5.52484167559		
3077			5.52748379608		
3078			5.52811514752		
3079			5.53045334698		
3080			5.53087032815		
3081			5.53117458257		
3082			5.53248219482		
3083			5.53730603779		
3084			5.53793561187		
3085			5.54020117662		
3086			5.54108925683		
3087			5.54870365139		
3088			5.54910344524		
3089			5.55157856194		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3090		5.55536568022		
3091		5.55578989322		
3092		5.55684635044		
3093		5.55727502874		
3094		5.55813082837		
3095		5.56242602117		
3096		5.56951058685		
3097		5.5706485075		
3098		5.57257068024		
3099		5.57441790989		
3100		5.58599575914		
3101		5.59588449592		
3102		5.6001369317		
3103		5.60053870417		
3104		5.60113338661		
3105		5.60197246712		
3106		5.60999584075		
3107		5.61919938123		
3108		5.62209746285		
3109		5.62241592205		
3110		5.6229974523		
3111		5.6240235781		
3112		5.62523360919		
3113		5.62841130439		
3114		5.62983972137		
3115		5.63506307447		
3116		5.6373884771		
3117		5.6400746512		
3118		5.640442137		
3119		5.64116244407		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3120		5.64296179345		
3121		5.6449908575		
3122		5.64685360905		
3123		5.64790373572		
3124		5.65285742407		
3125		5.65297445142		
3126		5.65306729711		
3127		5.65440768907		
3128		5.65599207898		
3129		5.6562284068		
3130		5.66057349161		
3131		5.66146614483		
3132		5.66187069843		
3133		5.66336998751		
3134		5.66365680568		
3135		5.6646924576		
3136		5.66575483476		
3137		5.66647697162		
3138		5.66700600954		
3139		5.67168457166		
3140		5.67331184673		
3141		5.67542212103		
3142		5.67716864693		
3143		5.67833776186		
3144		5.68005190289		
3145		5.68083646506		
3146		5.68306809218		
3147		5.68315818022		
3148		5.68609907394		
3149		5.68756061181		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3150		5.69040246075		
3151		5.69048046542		
3152		5.69213399968		
3153		5.69463589134		
3154		5.69621231074		
3155		5.69663526512		
3156		5.69830292331		
3157		5.69889623247		
3158		5.70417942232		
3159		5.7064430068		
3160		5.7070431445		
3161		5.70902910473		
3162		5.70995665292		
3163		5.71005069306		
3164		5.71077767965		
3165		5.71276820969		
3166		5.71281023501		
3167		5.71406242791		
3168		5.7159696598		
3169		5.72042355575		
3170		5.72088941153		
3171		5.72571999774		
3172		5.72662430435		
3173		5.72783148722		
3174		5.7282160547		
3175		5.72995586038		
3176		5.73236151389		
3177		5.73239060992		
3178		5.73371692438		
3179		5.73635845429		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3180		5.73735594832		
3181		5.73901717749		
3182		5.73972316894		
3183		5.73996930773		
3184		5.74573589164		
3185		5.74716365531		
3186		5.74718220851		
3187		5.74963466023		
3188		5.75098399311		
3189		5.75371799005		
3190		5.75948410414		
3191		5.75987644837		
3192		5.76058308251		
3193		5.76075182339		
3194		5.76131535765		
3195		5.77506647843		
3196		5.77741590364		
3197		5.7955946493		
3198		5.79665619942		
3199		5.8003000647		
3200		5.80841173361		
3201		5.81116255587		
3202		5.81182007347		
3203		5.81334781917		
3204		5.81642232504		
3205		5.81853787577		
3206		5.81941204432		
3207		5.81990087583		
3208		5.82119994539		
3209		5.82120780097		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3210		5.82195147565		
3211		5.82978022126		
3212		5.8318271461		
3213		5.8351828225		
3214		5.83930814361		
3215		5.84089082668		
3216		5.8410712773		
3217		5.84601204141		
3218		5.85389820436		
3219		5.85577717011		
3220		5.856848663		
3221		5.85810288929		
3222		5.85986191063		
3223		5.86272786724		
3224		5.86494836047		
3225		5.86879258769		
3226		5.86963922736		
3227		5.86996595181		
3228		5.87509455875		
3229		5.87664644326		
3230		5.87903469305		
3231		5.88080538642		
3232		5.88297746765		
3233		5.8868701643		
3234		5.88955963182		
3235		5.89021013946		
3236		5.89054668802		
3237		5.89055387302		
3238		5.89284588289		
3239		5.89694403574		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3240		5.89836654897		
3241		5.89854134353		
3242		5.9011644979		
3243		5.90662528987		
3244		5.90777841265		
3245		5.90994116436		
3246		5.91380505432		
3247		5.91696150327		
3248		5.91909042096		
3249		5.92485833684		
3250		5.92572225851		
3251		5.92958265775		
3252		5.93145458852		
3253		5.93152431359		
3254		5.9326614007		
3255		5.93506299521		
3256		5.93574032641		
3257		5.93633885534		
3258		5.93744104066		
3259		5.93886556399		
3260		5.94252318995		
3261		5.94461367345		
3262		5.94622406526		
3263		5.94691370594		
3264		5.94897882188		
3265		5.95296304125		
3266		5.96339839569		
3267		5.9679246629		
3268		5.97214033573		
3269		5.97280176007		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3270		5.97424406655		
3271		5.97709882608		
3272		5.9798268014		
3273		5.98506846259		
3274		5.98907417042		
3275		5.99051237845		
3276		5.99074569959		
3277		5.99952225846		
3278		6.00016431446		
3279		6.00096000844		
3280		6.00599831484		
3281		6.01191086728		
3282		6.01317471607		
3283		6.01449072909		
3284		6.01452168475		
3285		6.01464002847		
3286		6.01495950385		
3287		6.01602462575		
3288		6.01846562174		
3289		6.02129858803		
3290		6.02312424431		
3291		6.02321285851		
3292		6.02493644036		
3293		6.02933658971		
3294		6.03055980776		
3295		6.03300997009		
3296		6.03445570208		
3297		6.03872565528		
3298		6.05056723443		
3299		6.05180866753		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3300		6.05383087491		
3301		6.05402099795		
3302		6.05481581159		
3303		6.05659184992		
3304		6.05876359582		
3305		6.0663069134		
3306		6.06669879023		
3307		6.06796901032		
3308		6.07534014682		
3309		6.07887832805		
3310		6.07992595721		
3311		6.08324291087		
3312		6.08614369632		
3313		6.08725418769		
3314		6.08877504528		
3315		6.08899650891		
3316		6.09093386236		
3317		6.09456922367		
3318		6.09507996112		
3319		6.09573933235		
3320		6.09965940557		
3321		6.10349118825		
3322		6.10365657512		
3323		6.10457762512		
3324		6.10767570877		
3325		6.11120174231		
3326		6.11188201524		
3327		6.11234699286		
3328		6.11412133859		
3329		6.11573791593		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3330		6.11574560871		
3331		6.12004012058		
3332		6.12113811189		
3333		6.12253537313		
3334		6.12432415301		
3335		6.12558953023		
3336		6.12821949033		
3337		6.12893473919		
3338		6.1308577545		
3339		6.13168340053		
3340		6.13381352797		
3341		6.1339899705		
3342		6.13454546209		
3343		6.13613526484		
3344		6.13747151447		
3345		6.14017318006		
3346		6.14297730473		
3347		6.14665817805		
3348		6.14707557429		
3349		6.14727135788		
3350		6.14940528892		
3351		6.15154444415		
3352		6.15511497563		
3353		6.15543267919		
3354		6.15591797225		
3355		6.15835695271		
3356		6.15888957741		
3357		6.1632044044		
3358		6.16672067089		
3359		6.1686332532		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3360		6.16887441017		
3361		6.17329220086		
3362		6.17557167734		
3363		6.17935258457		
3364		6.18339126201		
3365		6.19029341318		
3366		6.19145910849		
3367		6.19466573038		
3368		6.19618073829		
3369		6.1987951964		
3370		6.19999491125		
3371		6.20063899395		
3372		6.20193573844		
3373		6.2043704135		
3374		6.20474392654		
3375		6.20715345084		
3376		6.2107305226		
3377		6.21121789062		
3378		6.21123009061		
3379		6.21387654574		
3380		6.21568908666		
3381		6.21868166288		
3382		6.22328753535		
3383		6.22336399529		
3384		6.22712429782		
3385		6.22749339385		
3386		6.22973268195		
3387		6.2311718609		
3388		6.23283705105		
3389		6.2340222525		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3390		6.23403050788		
3391		6.23499107059		
3392		6.23538467017		
3393		6.24549377347		
3394		6.25036646476		
3395		6.25087500604		
3396		6.25521714788		
3397		6.25647472049		
3398		6.26070299335		
3399		6.26357877524		
3400		6.26439727011		
3401		6.26894675314		
3402		6.26973805083		
3403		6.26994785921		
3404		6.27430437303		
3405		6.27969028224		
3406		6.28040720812		
3407		6.28111559464		
3408		6.28278158618		
3409		6.28366206207		
3410		6.28467936638		
3411		6.28726990178		
3412		6.28728082821		
3413		6.29063117617		
3414		6.29127733694		
3415		6.2945552703		
3416		6.29662151057		
3417		6.29734268377		
3418		6.3009326372		
3419		6.30266589122		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3420		6.30487265086		
3421		6.30603506204		
3422		6.30926952406		
3423		6.31104988282		
3424		6.31126311638		
3425		6.31161844642		
3426		6.31239451644		
3427		6.31295873193		
3428		6.31411965129		
3429		6.3154223719		
3430		6.31684470537		
3431		6.31726274143		
3432		6.31875180442		
3433		6.31951327605		
3434		6.32586043647		
3435		6.32997746422		
3436		6.33159545476		
3437		6.33265905845		
3438		6.33345538154		
3439		6.33635962794		
3440		6.3364487484		
3441		6.34480104591		
3442		6.34979149761		
3443		6.35756287915		
3444		6.37383858308		
3445		6.37807530931		
3446		6.38311809454		
3447		6.40806739626		
3448		6.40864474384		
3449		6.40869211979		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3450		6.43254733792		
3451		6.44764134552		
3452		6.44874903299		
3453		6.44926523402		
3454		6.45571434102		
3455		6.45749597426		
3456		6.45890109931		
3457		6.46008331247		
3458		6.46696652886		
3459		6.46754630746		
3460		6.46935498962		
3461		6.47296434259		
3462		6.47421885452		
3463		6.4750009337		
3464		6.47870503092		
3465		6.48089998981		
3466		6.4809268221		
3467		6.48124375703		
3468		6.48249128007		
3469		6.48310270721		
3470		6.48355250273		
3471		6.48586682586		
3472		6.48716735705		
3473		6.48730349861		
3474		6.4895080616		
3475		6.49006622173		
3476		6.49242635452		
3477		6.49291755869		
3478		6.49348161581		
3479		6.49534717711		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3480		6.49701304437		
3481		6.49786762228		
3482		6.49917824765		
3483		6.50012615385		
3484		6.50261785304		
3485		6.5027171582		
3486		6.50310351552		
3487		6.50393032333		
3488		6.50487403244		
3489		6.50558062258		
3490		6.5069170538		
3491		6.50870734944		
3492		6.5103765784		
3493		6.51054350415		
3494		6.51079395705		
3495		6.51273614509		
3496		6.51724086804		
3497		6.52055123257		
3498		6.52174680738		
3499		6.52263215899		
3500		6.52347191105		
3501		6.52485295247		
3502		6.53020561343		
3503		6.53024770241		
3504		6.5310935325		
3505		6.53539025528		
3506		6.53555468266		
3507		6.53831477652		
3508		6.53837361076		
3509		6.53841300473		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3510		6.53937111456		
3511		6.54212499518		
3512		6.54693357825		
3513		6.55117370365		
3514		6.55770034113		
3515		6.55964482613		
3516		6.56326291402		
3517		6.56368305774		
3518		6.57062984975		
3519		6.57134150408		
3520		6.57236964422		
3521		6.57716568846		
3522		6.58101615192		
3523		6.58173041862		
3524		6.58801466977		
3525		6.592618372		
3526		6.59421013638		
3527		6.60403777192		
3528		6.60471716883		
3529		6.61531476187		
3530		6.61762550669		
3531		6.61812678514		
3532		6.62254901388		
3533		6.62290526034		
3534		6.62809530885		
3535		6.63112661345		
3536		6.63550038294		
3537		6.63558626944		
3538		6.63681452926		
3539		6.64128465676		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3540		6.6425390659		
3541		6.64914893469		
3542		6.65204722727		
3543		6.6525323672		
3544		6.65489392282		
3545		6.65567552482		
3546		6.65732362015		
3547		6.65843872678		
3548		6.6585779415		
3549		6.66684797724		
3550		6.66817510063		
3551		6.66985331755		
3552		6.67389956113		
3553		6.67804257947		
3554		6.6829854305		
3555		6.68794516043		
3556		6.68926566386		
3557		6.69974552613		
3558		6.7023046203		
3559		6.70374692506		
3560		6.70397501564		
3561		6.70531305077		
3562		6.71135194214		
3563		6.71156314552		
3564		6.71266305711		
3565		6.71594389495		
3566		6.72032775854		
3567		6.72244549078		
3568		6.72378117056		
3569		6.7283098433		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3570		6.7285326787		
3571		6.73205080757		
3572		6.73880968834		
3573		6.74042214356		
3574		6.74341947396		
3575		6.74566792752		
3576		6.75419337314		
3577		6.76005173268		
3578		6.76319889407		
3579		6.76362594779		
3580		6.76383597159		
3581		6.77792264666		
3582		6.77883984957		
3583		6.79240481892		
3584		6.80112926285		
3585		6.80863412734		
3586		6.81489026398		
3587		6.82274484999		
3588		6.8240193684		
3589		6.82691968782		
3590		6.82860667311		
3591		6.83148666109		
3592		6.83304643249		
3593		6.83360643392		
3594		6.83432014192		
3595		6.84066755729		
3596		6.84070551877		
3597		6.84214028633		
3598		6.84519320712		
3599		6.85499543154		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3600		6.8552136324		
3601		6.85523577196		
3602		6.85631810416		
3603		6.85996309737		
3604		6.86693883971		
3605		6.86813285886		
3606		6.8692361495		
3607		6.87044029749		
3608		6.87345572531		
3609		6.88391812079		
3610		6.88804577017		
3611		6.88820062651		
3612		6.89173655311		
3613		6.89709536506		
3614		6.89958631328		
3615		6.90023965791		
3616		6.90292878147		
3617		6.90353966959		
3618		6.90384207349		
3619		6.90939627454		
3620		6.91143080912		
3621		6.91186579436		
3622		6.91189479407		
3623		6.91278874679		
3624		6.91464284807		
3625		6.91487279388		
3626		6.91738826583		
3627		6.92738423955		
3628		6.92934164919		
3629		6.93012943716		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3630		6.93594571324		
3631		6.93780103754		
3632		6.93900450865		
3633		6.9405386971		
3634		6.96345554063		
3635		6.96392833079		
3636		6.96817196165		
3637		6.96834250899		
3638		6.97167099239		
3639		6.97457927697		
3640		6.98205503053		
3641		6.98309818277		
3642		6.98331017245		
3643		6.98354753289		
3644		6.98658371404		
3645		6.98850583186		
3646		6.99341811027		
3647		6.99465435674		
3648		6.99583360826		
3649		6.9987819975		
3650		7.00154064168		
3651		7.00406700938		
3652		7.00408790474		
3653		7.00664591498		
3654		7.00949424013		
3655		7.01089076154		
3656		7.0131380612		
3657		7.01403386719		
3658		7.01655031644		
3659		7.01909193701		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3660		7.01981545225		
3661		7.02207551542		
3662		7.02370225165		
3663		7.02423608162		
3664		7.02565084702		
3665		7.02944248238		
3666		7.03390071622		
3667		7.03499282537		
3668		7.03608343606		
3669		7.03685674428		
3670		7.03892650659		
3671		7.04131816694		
3672		7.04283181763		
3673		7.0431583131		
3674		7.04377477016		
3675		7.04519210068		
3676		7.04614208353		
3677		7.05038618383		
3678		7.05162485539		
3679		7.05179339443		
3680		7.05330772175		
3681		7.05425889124		
3682		7.05438944735		
3683		7.05557730503		
3684		7.05571105936		
3685		7.05735032758		
3686		7.05808615373		
3687		7.05810689884		
3688		7.05823788027		
3689		7.06106244773		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3690		7.06365108304		
3691		7.06461115414		
3692		7.06467898821		
3693		7.06488696712		
3694		7.0657432781		
3695		7.06862165427		
3696		7.06931810593		
3697		7.07085882043		
3698		7.07247032429		
3699		7.07375390953		
3700		7.07419218647		
3701		7.07463560947		
3702		7.0755390606		
3703		7.07680409699		
3704		7.07764737037		
3705		7.07881706062		
3706		7.07919013932		
3707		7.08046328046		
3708		7.08054113685		
3709		7.08152423216		
3710		7.08210118444		
3711		7.08294507063		
3712		7.08309374655		
3713		7.08437963129		
3714		7.08507015844		
3715		7.0852165213		
3716		7.08646986851		
3717		7.08944340744		
3718		7.08979455506		
3719		7.0902690851		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3720		7.0938033871		
3721		7.09410756164		
3722		7.09500614148		
3723		7.09553726867		
3724		7.09672353963		
3725		7.09758082473		
3726		7.09766681072		
3727		7.09790725211		
3728		7.09907114513		
3729		7.09969394327		
3730		7.10058997897		
3731		7.10106447134		
3732		7.10320868063		
3733		7.10369483958		
3734		7.10448984447		
3735		7.10497037829		
3736		7.10511906161		
3737		7.10617549939		
3738		7.10737896453		
3739		7.10864278893		
3740		7.10902700926		
3741		7.11239828499		
3742		7.11328169812		
3743		7.11396800855		
3744		7.11447407024		
3745		7.11484862042		
3746		7.11654951388		
3747		7.11695407787		
3748		7.11721513815		
3749		7.11872411085		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3750		7.11919151073		
3751		7.12086678008		
3752		7.12197407255		
3753		7.12324140464		
3754		7.12338603988		
3755		7.12409590757		
3756		7.1242103522		
3757		7.12558362503		
3758		7.12590806041		
3759		7.12629115499		
3760		7.12657478879		
3761		7.1270383983		
3762		7.12871811313		
3763		7.12878356773		
3764		7.13042684763		
3765		7.13083618949		
3766		7.13131263445		
3767		7.13245687325		
3768		7.13382426398		
3769		7.13631994173		
3770		7.1373761756		
3771		7.13894099195		
3772		7.13919920935		
3773		7.14354399223		
3774		7.1442013565		
3775		7.14467856377		
3776		7.14597023785		
3777		7.14690746004		
3778		7.14748376941		
3779		7.14790067136		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3780		7.14921646234		
3781		7.14977602954		
3782		7.14979357221		
3783		7.15097164589		
3784		7.15120110751		
3785		7.15349801298		
3786		7.15359006301		
3787		7.15947343787		
3788		7.16164335186		
3789		7.16225842935		
3790		7.16293146522		
3791		7.16532159976		
3792		7.16682223972		
3793		7.16834440155		
3794		7.16854270657		
3795		7.16880084189		
3796		7.17127807505		
3797		7.17137662946		
3798		7.17200549781		
3799		7.17307945765		
3800		7.17408521634		
3801		7.17430826509		
3802		7.17476050256		
3803		7.17508548298		
3804		7.17650426691		
3805		7.17741358784		
3806		7.17838661028		
3807		7.17906884566		
3808		7.17962995848		
3809		7.18032518166		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3810		7.1811951018		
3811		7.18217996753		
3812		7.18288754897		
3813		7.18292057676		
3814		7.18353548804		
3815		7.18535226121		
3816		7.18701854842		
3817		7.18739326582		
3818		7.18769382732		
3819		7.18932597621		
3820		7.18939036672		
3821		7.19037126446		
3822		7.19069851206		
3823		7.19187555644		
3824		7.19384631793		
3825		7.19466783395		
3826		7.19596199945		
3827		7.19648001664		
3828		7.19755804587		
3829		7.19833254046		
3830		7.19886806466		
3831		7.20027789108		
3832		7.20052487922		
3833		7.20156629106		
3834		7.20159786194		
3835		7.20292853543		
3836		7.20395879713		
3837		7.20545916671		
3838		7.20573244471		
3839		7.2062310601		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3840		7.20646087294		
3841		7.20658644201		
3842		7.20664334886		
3843		7.20710721045		
3844		7.20761825693		
3845		7.20869307786		
3846		7.20898652327		
3847		7.20942231643		
3848		7.20998257175		
3849		7.21090352263		
3850		7.21192826378		
3851		7.21221904858		
3852		7.21246464649		
3853		7.21253895397		
3854		7.21271866374		
3855		7.2134109711		
3856		7.21403908366		
3857		7.21412875924		
3858		7.21416569233		
3859		7.21588626892		
3860		7.21617085772		
3861		7.21670273283		
3862		7.21779604595		
3863		7.21853487696		
3864		7.21869664849		
3865		7.21923188055		
3866		7.22071156025		
3867		7.22146032878		
3868		7.22287544701		
3869		7.22402322842		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3870		7.22445523844		
3871		7.2260743794		
3872		7.226311173		
3873		7.22670947969		
3874		7.22681026516		
3875		7.22740269742		
3876		7.22773109342		
3877		7.22779974406		
3878		7.22905892602		
3879		7.23098806841		
3880		7.23105942104		
3881		7.23115604529		
3882		7.2313287512		
3883		7.23142850112		
3884		7.23183817707		
3885		7.23198744666		
3886		7.23266584331		
3887		7.23356494208		
3888		7.23397105932		
3889		7.23407056975		
3890		7.23463866736		
3891		7.23546198048		
3892		7.23556866443		
3893		7.2361503896		
3894		7.23661637918		
3895		7.23668849206		
3896		7.23735654488		
3897		7.23853510566		
3898		7.23902457816		
3899		7.23947742648		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3900		7.2403480935		
3901		7.24076686776		
3902		7.24122648496		
3903		7.24144137111		
3904		7.24198847295		
3905		7.24204828023		
3906		7.24265598791		
3907		7.24275242915		
3908		7.24291622004		
3909		7.24373176499		
3910		7.24377493504		
3911		7.24460042303		
3912		7.24483857344		
3913		7.24533797305		
3914		7.24738543749		
3915		7.24760626477		
3916		7.24799649306		
3917		7.24818687445		
3918		7.24869856279		
3919		7.24870041553		
3920		7.24898679717		
3921		7.24902982241		
3922		7.24940244		
3923		7.24963276888		
3924		7.24982914443		
3925		7.25006697644		
3926		7.25012856776		
3927		7.25017199419		
3928		7.25064853353		
3929		7.25120754496		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3930		7.2520646359		
3931		7.25213080671		
3932		7.252487618		
3933		7.25326741767		
3934		7.25420031809		
3935		7.25546868839		
3936		7.25581093696		
3937		7.25610794584		
3938		7.25709064505		
3939		7.25766145803		
3940		7.25824515378		
3941		7.25833798891		
3942		7.2584249413		
3943		7.25934501468		
3944		7.25994347066		
3945		7.26172384627		
3946		7.26176325564		
3947		7.26206831667		
3948		7.26282975053		
3949		7.26285417591		
3950		7.26359981112		
3951		7.26412485743		
3952		7.26527153592		
3953		7.26567803926		
3954		7.26616212334		
3955		7.26726301357		
3956		7.26754129692		
3957		7.26783746101		
3958		7.26874511076		
3959		7.26936613684		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3960		7.26952721905		
3961		7.269557156		
3962		7.26970881493		
3963		7.270170751		
3964		7.27082737554		
3965		7.2714551035		
3966		7.27158478623		
3967		7.27194611135		
3968		7.2742166045		
3969		7.27475925739		
3970		7.27541216128		
3971		7.27673493672		
3972		7.27755947968		
3973		7.27868428621		
3974		7.27888356268		
3975		7.27889477624		
3976		7.28012454065		
3977		7.28047817504		
3978		7.28194995011		
3979		7.28227909296		
3980		7.28412522987		
3981		7.28458124839		
3982		7.2852753379		
3983		7.28629137385		
3984		7.28670305264		
3985		7.28786363079		
3986		7.2892664017		
3987		7.28987096916		
3988		7.29180141579		
3989		7.29202212777		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
3990		7.29253783718		
3991		7.29268041983		
3992		7.29371742417		
3993		7.29503994513		
3994		7.29564956716		
3995		7.29614911598		
3996		7.29829770811		
3997		7.29941275112		
3998		7.3014736608		
3999		7.30305656242		
4000		7.30437137513		
4001		7.30648289932		
4002		7.30654811618		
4003		7.30671843134		
4004		7.30714481838		
4005		7.30739274407		
4006		7.30739651618		
4007		7.30794424229		
4008		7.30796244103		
4009		7.30902223185		
4010		7.31099188045		
4011		7.31114992673		
4012		7.31164817726		
4013		7.31418813472		
4014		7.31435692387		
4015		7.31467966373		
4016		7.31507338386		
4017		7.3184393772		
4018		7.3184681273		
4019		7.32017037028		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
4020		7.32024344607		
4021		7.32068934582		
4022		7.32082432359		
4023		7.32175175887		
4024		7.32263103949		
4025		7.32349166825		
4026		7.32428756318		
4027		7.3243651552		
4028		7.32485793194		
4029		7.32580624242		
4030		7.32626227524		
4031		7.32707833269		
4032		7.32896378859		
4033		7.32923461816		
4034		7.33015998983		
4035		7.33078951928		
4036		7.33171230853		
4037		7.33261779899		
4038		7.33352742166		
4039		7.3356119184		
4040		7.33588853581		
4041		7.33645011501		
4042		7.33759487355		
4043		7.33768357832		
4044		7.33820214947		
4045		7.33930965331		
4046		7.33975059228		
4047		7.3408187396		
4048		7.3409733339		
4049		7.34247229851		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
4050		7.34290989786		
4051		7.34298716592		
4052		7.34394429939		
4053		7.34566767864		
4054		7.34582759719		
4055		7.34644725992		
4056		7.34670159143		
4057		7.34865810148		
4058		7.34867220721		
4059		7.3486787337		
4060		7.34927767612		
4061		7.34959017243		
4062		7.35085379323		
4063		7.35102387593		
4064		7.3519250736		
4065		7.35195175996		
4066		7.35235698124		
4067		7.35248707944		
4068		7.35291034972		
4069		7.35388995385		
4070		7.35463869797		
4071		7.35711064157		
4072		7.35950880952		
4073		7.35967390273		
4074		7.35972116542		
4075		7.36002686003		
4076		7.36267808077		
4077		7.36291394754		
4078		7.36651308846		
4079		7.3719507276		

<b>Klein Bottle Horizontal Glued Identifications</b>				
Eigenvalue $\lambda_2$ for $M = 2$	Eigenvalue $\lambda_3$ for $M = 3$	Eigenvalue $\lambda_4$ for $M = 4$	Ratio $\lambda_2/\lambda_3$	Ratio $\lambda_3/\lambda_4$
4080		7.37280508598		
4081		7.37425026927		
4082		7.37813169239		
4083		7.38059971398		
4084		7.38068677597		
4085		7.38126790083		
4086		7.38315693271		
4087		7.38642109663		
4088		7.38965801864		
4089		7.38980765057		
4090		7.39712357121		
4091		7.40219591997		
4092		7.4023325371		
4093		7.40268910425		
4094		7.40717091772		
4095		7.41421356237		