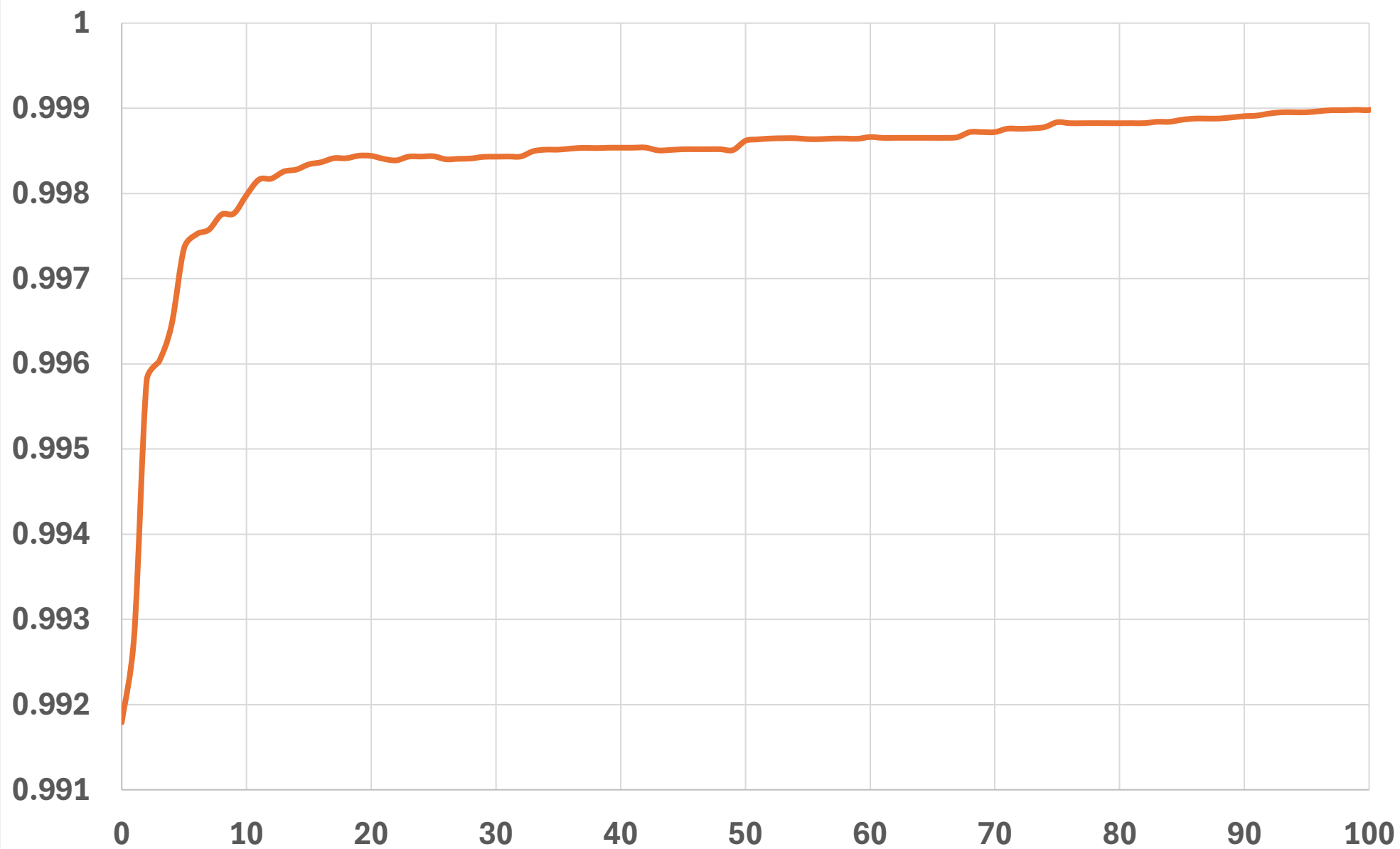
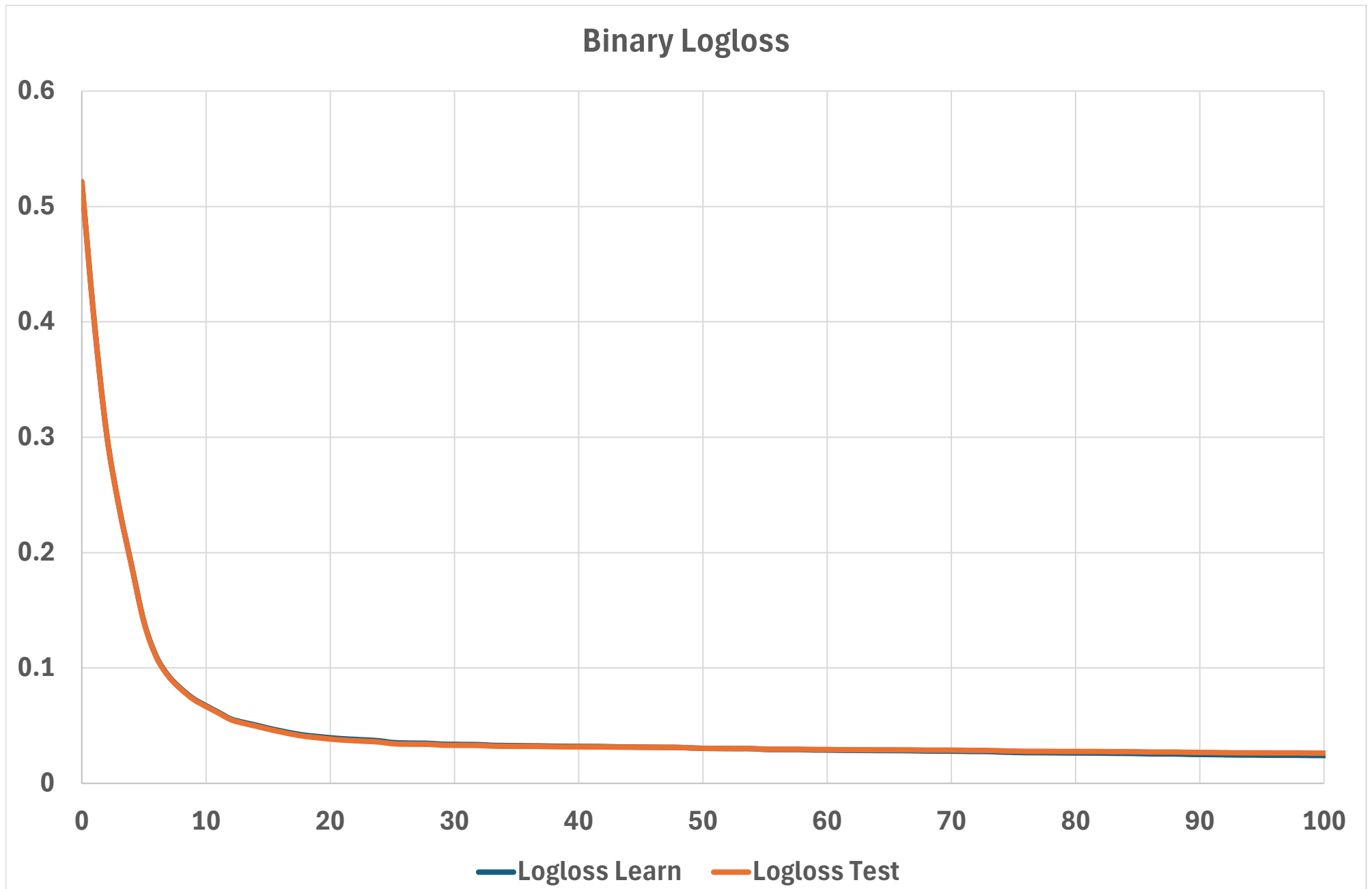


CATB TB AUC

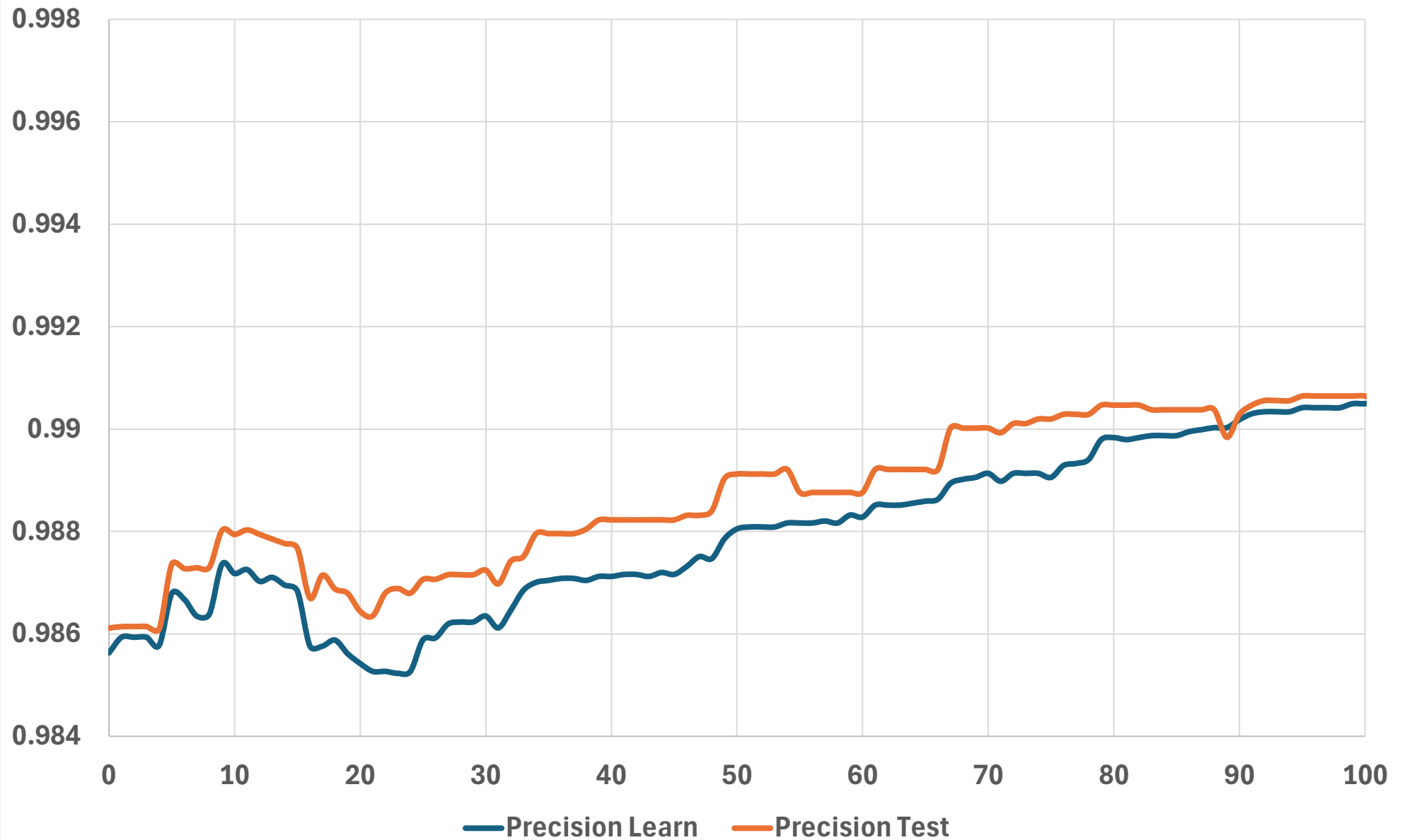
AUC





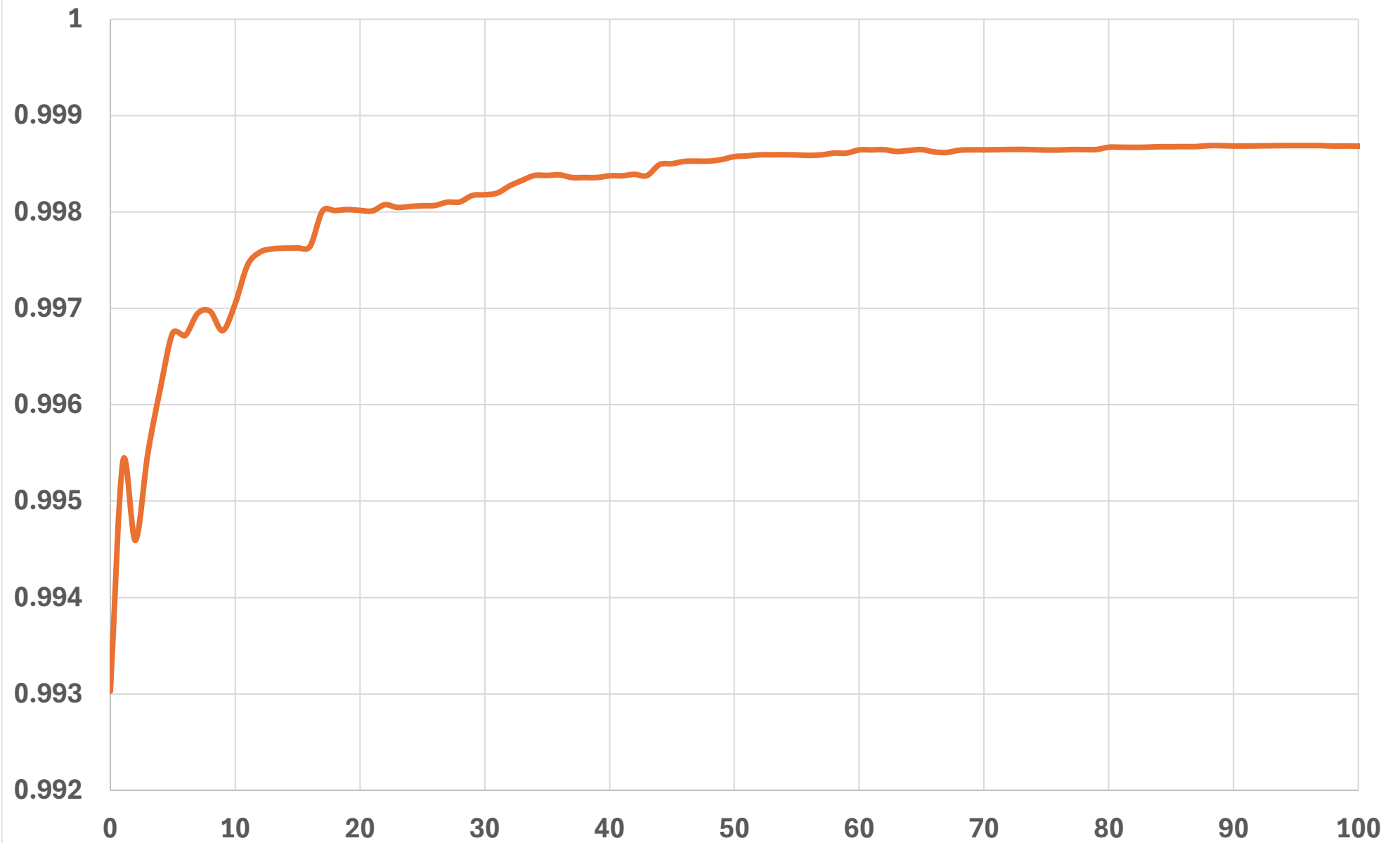
CATB TB Precision

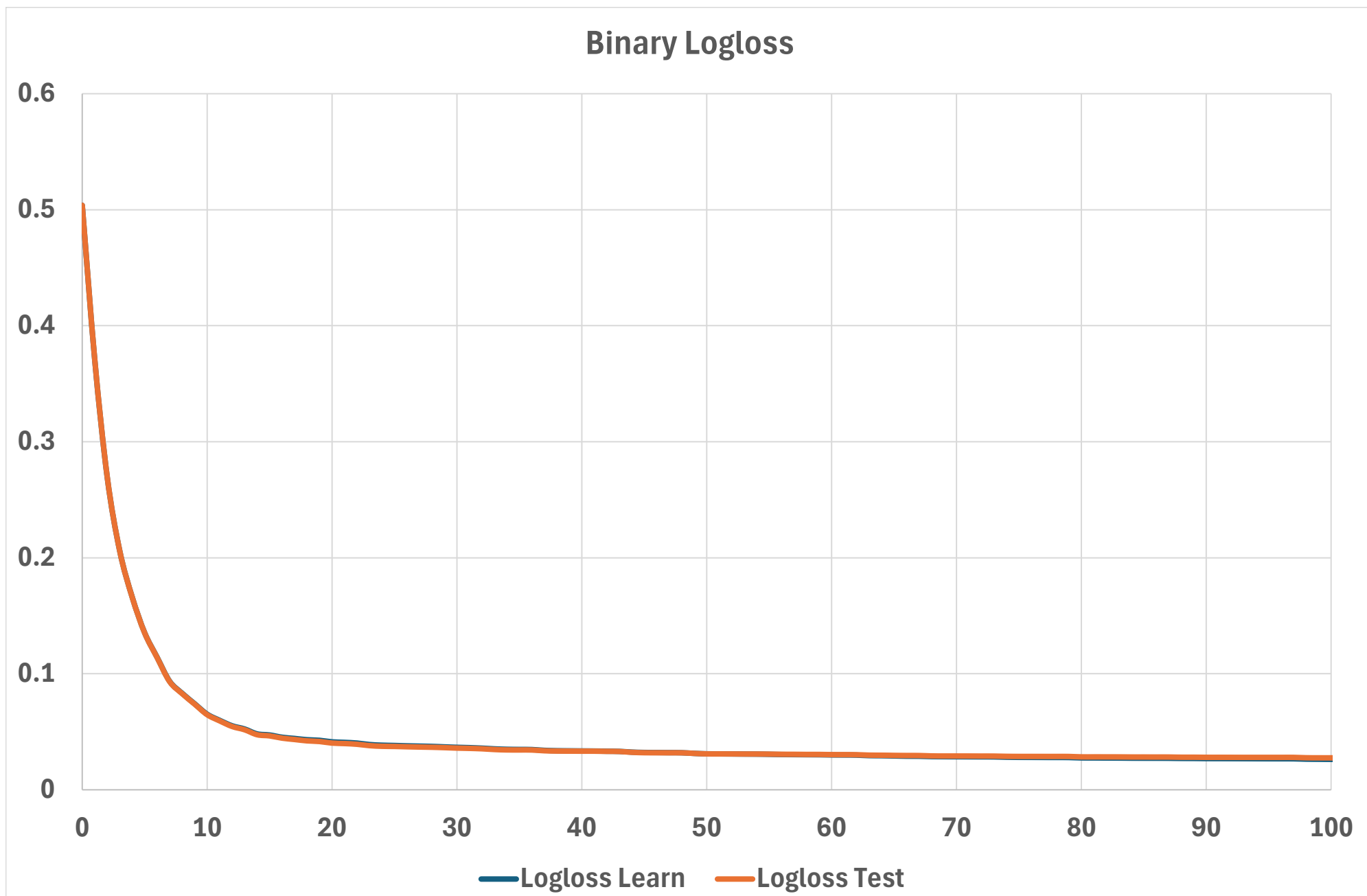
## Precision



CATB IB AUC

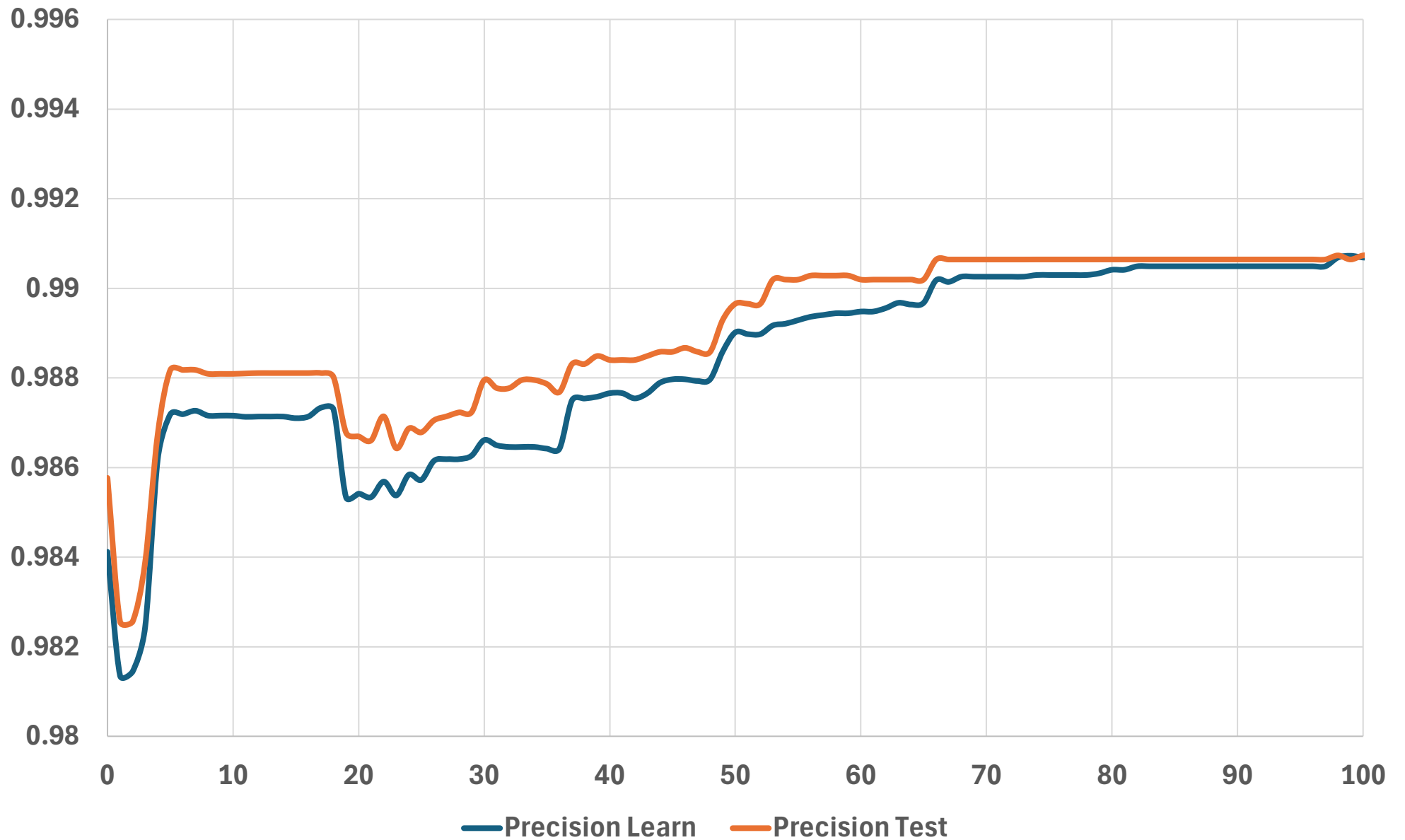
AUC





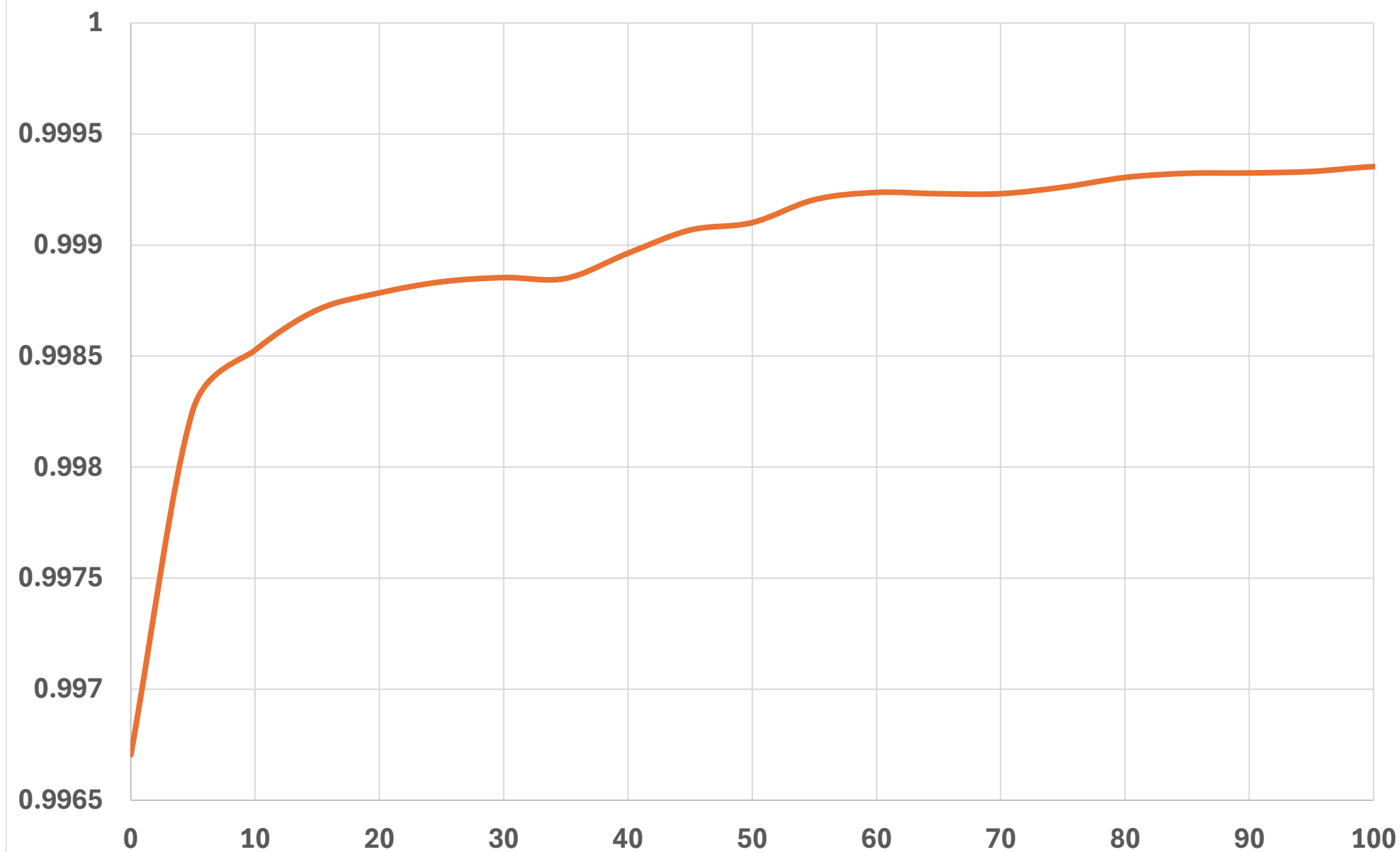
CATB IB Precision

## Precision

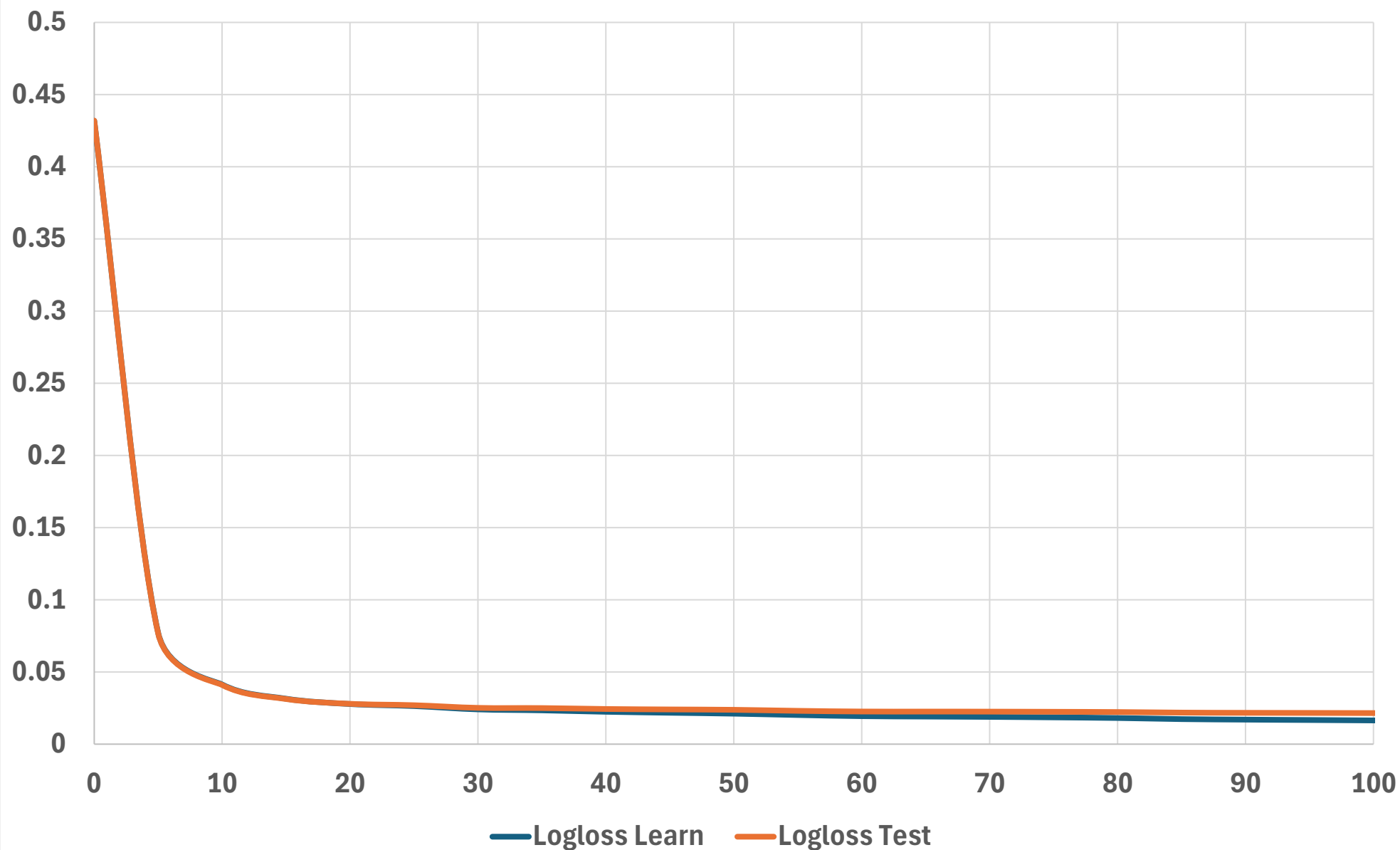


T CATB TB AUC

AUC

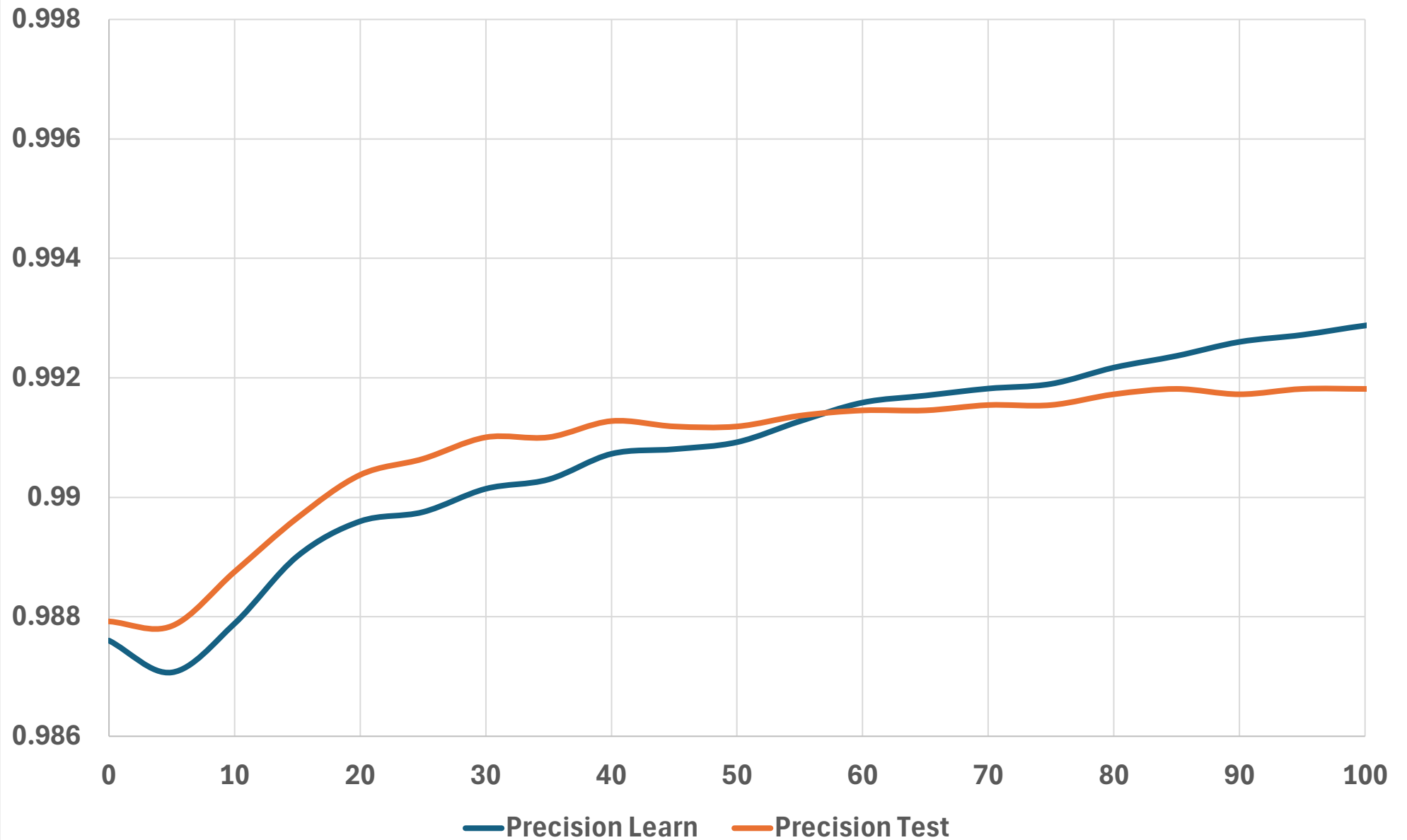


## Binary Logloss



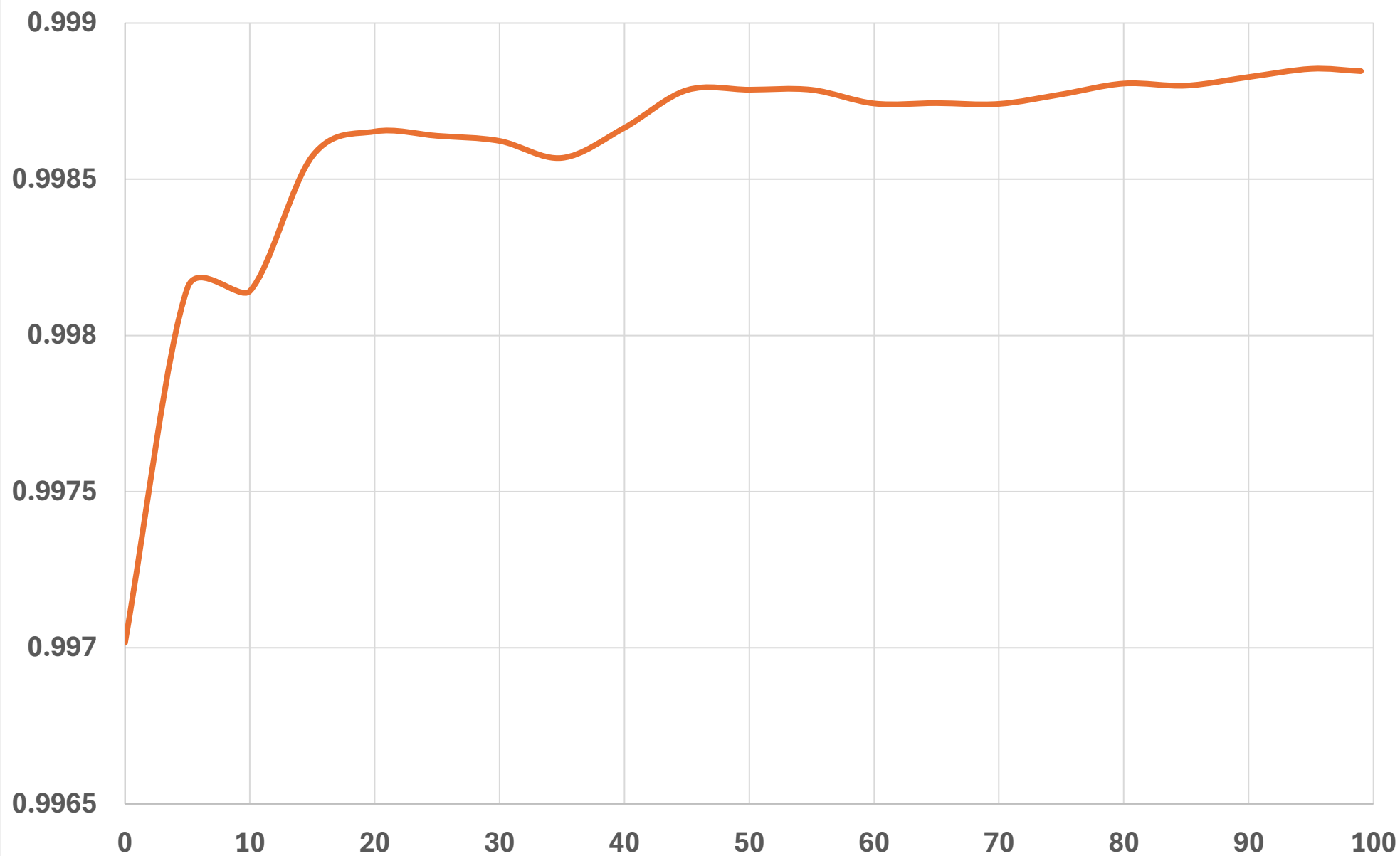


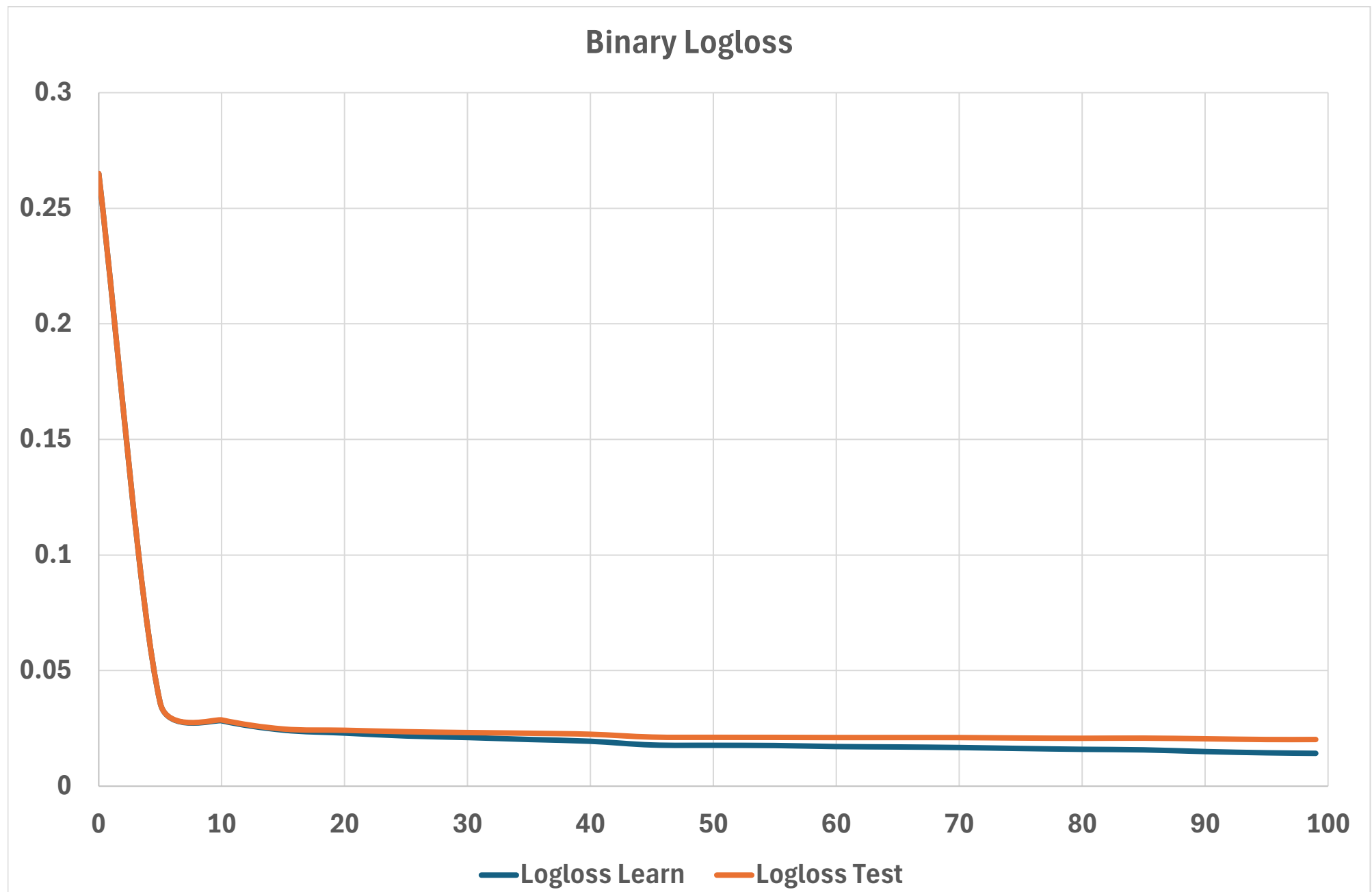
# Precision



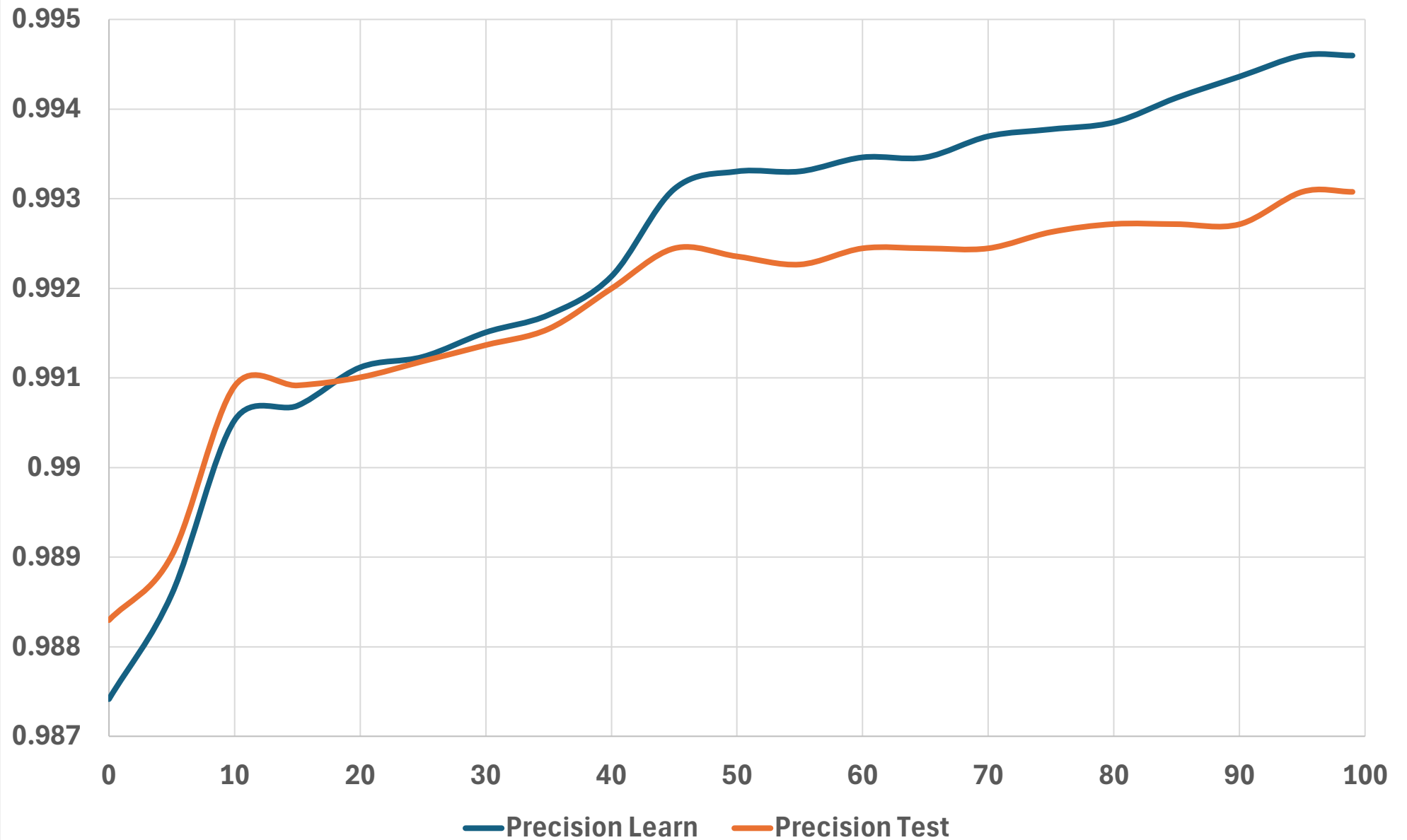
T CATB IB AUC

AUC





# Precision



## CatBoost TB

Step	AUC	Logloss Learn	Logloss Test	Precision Learn	Precision Test
0	0.991790473	0.521494567	0.521393716	0.985628009	0.986113667
1	0.992813349	0.400709301	0.400400758	0.985933781	0.986141503
2	0.995806992	0.30297789	0.302639604	0.985933781	0.986142755
3	0.996029079	0.239894986	0.239290163	0.985932708	0.986144006
4	0.996461272	0.189406678	0.188812256	0.98577714	0.986097217
5	0.997359276	0.140333235	0.139751971	0.986790895	0.987362504
6	0.997521698	0.110068254	0.109478012	0.986674547	0.987272739
7	0.997576237	0.092963628	0.092470363	0.986343861	0.987291217
8	0.997752964	0.082022801	0.081469059	0.986388445	0.987302721
9	0.997766376	0.073327251	0.072730877	0.987360179	0.988020718
10	0.997980654	0.067269936	0.066658244	0.987178504	0.98794198
11	0.998163402	0.061565854	0.060985446	0.987255931	0.988030493
12	0.998174727	0.055819441	0.05522028	0.987024724	0.98794198
13	0.998258531	0.052905433	0.05210996	0.987103105	0.987852395
14	0.998280764	0.050538894	0.049684837	0.986951411	0.987762868
15	0.998342395	0.047857177	0.047023457	0.986836433	0.987673342
16	0.998367846	0.045539107	0.044662226	0.985760689	0.986698031
17	0.998414338	0.04344305	0.042461451	0.985761225	0.987146974
18	0.99841398	0.041687753	0.040687729	0.985877454	0.986875474
19	0.998443425	0.040603925	0.039561786	0.985613227	0.98679328
20	0.998441875	0.039533608	0.038413238	0.985421121	0.986440063
21	0.99840647	0.038692694	0.037552964	0.985267103	0.986350894
22	0.998389006	0.038085058	0.036968824	0.985267699	0.986796916
23	0.998432517	0.037519973	0.036422059	0.985229194	0.986886144
24	0.998433888	0.036832474	0.03578018	0.985267699	0.986796916
25	0.998436749	0.035404552	0.034390599	0.985883534	0.987063527
26	0.998401403	0.035003256	0.03405359	0.985922098	0.987065852
27	0.998407245	0.034828074	0.033937637	0.986192584	0.987155139
28	0.998411357	0.034657545	0.033820659	0.986231148	0.987155139
29	0.998430073	0.033969127	0.033144988	0.986232817	0.987155139
30	0.998432159	0.033824485	0.033022858	0.98634851	0.987244427
31	0.998434067	0.033689979	0.03294377	0.986117601	0.986976564
32	0.998434842	0.033557102	0.032866113	0.986464798	0.987423062
33	0.99849689	0.032979283	0.032340936	0.986851394	0.987511337
34	0.998514235	0.032801453	0.032189455	0.987005889	0.987958372
35	0.998514593	0.032696515	0.032113824	0.987044513	0.987958372
36	0.998527229	0.032580908	0.032056816	0.987083137	0.987958372
37	0.99853605	0.032473072	0.031993069	0.987083137	0.987958372
38	0.99853301	0.032236412	0.031800892	0.987044513	0.988046706
39	0.998537421	0.032145292	0.031690214	0.987121761	0.988225698
40	0.998537481	0.032071967	0.031680327	0.987121761	0.988225698
41	0.998537779	0.031995274	0.031608135	0.987160444	0.988225698
42	0.99853915	0.031921268	0.031595346	0.987160444	0.988225698
43	0.998506129	0.031648844	0.031407036	0.987121761	0.988226771
44	0.998511136	0.031561747	0.031374123	0.987199068	0.988226771

45	0.998519421	0.031409428	0.031237347	0.987161934	0.988225698
46	0.99851954	0.031334247	0.031208118	0.987316489	0.988315225
47	0.998519719	0.031241199	0.031162977	0.987509787	0.988315225
48	0.998519659	0.031174373	0.031134838	0.987471104	0.988404751
49	0.998509705	0.030725218	0.030696921	0.987856448	0.989031911
50	0.998618782	0.030387683	0.030410729	0.988049507	0.989121556
51	0.998635471	0.030250825	0.03030704	0.98808825	0.989121556
52	0.998645604	0.030180706	0.030247319	0.98808825	0.98912257
53	0.998648942	0.030119285	0.030224502	0.98808825	0.98912257
54	0.99864924	0.030057302	0.030202983	0.988165677	0.989212215
55	0.998638451	0.029415818	0.029667052	0.988165677	0.988762021
56	0.998638451	0.029363709	0.029650906	0.988165677	0.988762021
57	0.998645008	0.029311169	0.029634103	0.98820442	0.988762021
58	0.998645306	0.029244553	0.029604482	0.988165677	0.988762021
59	0.998643041	0.028938664	0.029373743	0.988320112	0.988763034
60	0.998662889	0.02888657	0.02935298	0.988281429	0.988763034
61	0.998653233	0.028677346	0.029173799	0.988514304	0.989211261
62	0.99865365	0.028621262	0.029136373	0.988514304	0.989211261
63	0.99865365	0.028573772	0.029135626	0.988514304	0.989211261
64	0.998653769	0.028495552	0.029085932	0.988553047	0.989210248
65	0.998653769	0.028445991	0.029078418	0.98859179	0.989210248
66	0.998653471	0.028388603	0.029058395	0.988630593	0.989210248
67	0.998661101	0.028276287	0.028988507	0.988940299	0.990018129
68	0.998721063	0.028055009	0.028826352	0.989018321	0.990018129
69	0.998721063	0.028007608	0.02882012	0.989057124	0.990018129
70	0.998721004	0.027954092	0.028820084	0.989134669	0.990018129
71	0.9987607	0.027776917	0.028678501	0.988979936	0.989928305
72	0.998760104	0.027676908	0.028583053	0.989134669	0.990108013
73	0.998765111	0.027623674	0.028558748	0.989134669	0.990108013
74	0.998779714	0.027153092	0.028175531	0.989133835	0.990197837
75	0.998836577	0.02690009	0.027968137	0.98905623	0.990196943
76	0.99882555	0.026644422	0.027770918	0.989289522	0.990287721
77	0.99882549	0.026606223	0.02777102	0.989328325	0.990287721
78	0.998826385	0.026559804	0.027743924	0.98940593	0.990287721
79	0.99882561	0.026420893	0.027672213	0.989794314	0.990466654
80	0.998825312	0.026370671	0.027672084	0.989833176	0.990466654
81	0.998825788	0.026322372	0.027640173	0.989794314	0.990466654
82	0.998826027	0.026278939	0.027623188	0.989833176	0.990466654
83	0.998841941	0.026074994	0.027487438	0.989872038	0.99037677
84	0.998841941	0.026029991	0.027487131	0.989872038	0.99037677
85	0.998865604	0.025875101	0.027379327	0.989872038	0.99037677
86	0.998879611	0.025582703	0.027151164	0.989949763	0.99037677
87	0.998879552	0.02553883	0.027149837	0.989988625	0.99037677
88	0.998880446	0.025502251	0.027142057	0.990027487	0.99037677
89	0.998893201	0.025207855	0.026923347	0.990027487	0.989838481
90	0.998908162	0.025059275	0.026843585	0.990182996	0.990287721
91	0.99891454	0.02498024	0.026772317	0.990299642	0.990467548

92	0.998938799	0.024793606	0.026606908	0.990338564	0.990556598
93	0.998953164	0.024607766	0.026487306	0.990338564	0.990555763
94	0.998953044	0.024574298	0.026487594	0.990338564	0.990555763
95	0.998953044	0.024477575	0.026457494	0.99041748	0.990644872
96	0.998966455	0.024403125	0.026422875	0.99041748	0.990644872
97	0.998977661	0.02437664	0.026402965	0.99041748	0.990644872
98	0.998977602	0.024350164	0.0264036	0.99041748	0.990644872
99	0.998981953	0.024189454	0.026249832	0.990495265	0.990644872
100	0.998979688	0.024144907	0.026232477	0.990495265	0.990644872
101	0.999015689	0.023922071	0.026094276	0.990534186	0.990554035
102	0.999015689	0.023895781	0.026094416	0.990534186	0.990554035
103	0.999080777	0.023781514	0.025982356	0.990573049	0.990554035
104	0.999080777	0.023743972	0.025976745	0.99061197	0.990554035
105	0.999078572	0.023606785	0.025905358	0.990611613	0.990554035
106	0.999078989	0.02358097	0.025890909	0.990611613	0.990554035
107	0.99907887	0.023547826	0.025885602	0.990650535	0.990554035
108	0.999082744	0.023520203	0.025874766	0.990650535	0.990554035
109	0.999082744	0.023495669	0.025874864	0.990650535	0.990554035
110	0.99908632	0.023342438	0.025776716	0.990650535	0.9905532
111	0.999093056	0.023318177	0.025758306	0.990650535	0.9905532
112	0.999092937	0.023293987	0.025759177	0.990650535	0.9905532
113	0.999092937	0.023269162	0.025759293	0.990650535	0.9905532
114	0.999093175	0.023212278	0.025729459	0.9907673	0.990643144
115	0.999107361	0.023082564	0.025639476	0.990884066	0.990643144
116	0.999107122	0.023038341	0.025638595	0.990923047	0.990643144
117	0.999120533	0.022905938	0.025519349	0.990923047	0.990643144
118	0.999121249	0.022832513	0.025490424	0.990923047	0.990643144
119	0.999123335	0.022806199	0.025480371	0.990923047	0.990643144
120	0.999127567	0.022763824	0.025463587	0.990923047	0.990733147
121	0.999127567	0.022739468	0.025463698	0.990923047	0.990733147
122	0.999127567	0.022704303	0.025463749	0.990961969	0.990733147
123	0.999128878	0.022679299	0.025454076	0.991000891	0.990733147
124	0.999128878	0.022655644	0.025454164	0.991000891	0.990733147
125	0.999126911	0.02258366	0.025439311	0.991000891	0.990733147
126	0.999126852	0.022559857	0.025444072	0.991000891	0.990733147
127	0.999126852	0.022536423	0.025444148	0.991000891	0.990733147
128	0.999141037	0.02242912	0.025391567	0.991000891	0.990823209
129	0.999141097	0.022391038	0.025362168	0.991039872	0.990823209
130	0.999170721	0.022252582	0.025208939	0.991039872	0.990823209
131	0.999170899	0.022227708	0.025200883	0.991039872	0.990823209
132	0.999170899	0.022203088	0.025200965	0.991039872	0.990823209
133	0.999172151	0.022101821	0.025147386	0.991078794	0.990733147
134	0.999172151	0.022078257	0.025147459	0.991078794	0.990733147
135	0.999172032	0.022056252	0.025147703	0.991078794	0.990733147
136	0.999171972	0.022032406	0.025148522	0.991078794	0.990733147
137	0.999171972	0.022009728	0.025149828	0.991078794	0.990733147
138	0.999171972	0.02198842	0.025149882	0.991078794	0.990733147

139	0.999171734	0.021952001	0.025141599	0.991078794	0.990733147
140	0.99917531	0.021803809	0.025000582	0.991078794	0.990733147
141	0.999182999	0.021780172	0.024982681	0.991078794	0.990733147
142	0.99918288	0.021757856	0.024982894	0.991078794	0.990733147
143	0.999187708	0.021737089	0.024973888	0.991078794	0.990733147
144	0.999187708	0.021715339	0.02497389	0.991078794	0.990733147
145	0.999187231	0.021692719	0.024975395	0.991078794	0.990733147
146	0.999184906	0.021634607	0.024937632	0.991117775	0.990733147
147	0.999185324	0.021612963	0.024930373	0.991117775	0.990733147
148	0.999184191	0.021498663	0.024856409	0.991117775	0.990733147
149	0.999184072	0.021467049	0.024847982	0.991117775	0.990733147
150	0.999185681	0.021445092	0.024831712	0.991117775	0.990733147
151	0.99919349	0.02133302	0.024764411	0.991156697	0.990733147
152	0.99919647	0.021256562	0.024658492	0.991195679	0.990733147
153	0.999196231	0.021235615	0.024661936	0.991195679	0.990733147
154	0.999196947	0.021129938	0.024554944	0.991351545	0.990823209
155	0.999196887	0.021102643	0.024550026	0.991351545	0.990823209
156	0.999199748	0.020911552	0.024396446	0.991467416	0.990912378
157	0.99922204	0.020737186	0.024211193	0.991545439	0.990912378
158	0.999218762	0.020675479	0.024180485	0.991506457	0.990912378
159	0.999237657	0.020536227	0.02411337	0.991545439	0.990912378
160	0.999239743	0.020408502	0.024025904	0.99146843	0.991003275
161	0.999240577	0.020338949	0.024003325	0.99146843	0.991003275
162	0.999249041	0.020318486	0.023986589	0.99146843	0.991003275
163	0.999256551	0.020298541	0.023980692	0.99146843	0.991003275
164	0.99926579	0.020238478	0.023944572	0.99146843	0.991003275
165	0.999267697	0.020094847	0.023878301	0.991546392	0.991003275
166	0.999275565	0.020075003	0.023845807	0.991546392	0.991003275
167	0.999275744	0.020055812	0.023839472	0.991546392	0.991003275
168	0.999279976	0.020006143	0.023796938	0.991546392	0.991003275
169	0.999279857	0.019987408	0.023798812	0.991546392	0.991093338
170	0.999280989	0.019895056	0.023747237	0.991585433	0.991092503
171	0.999290705	0.019772971	0.023698626	0.991741359	0.9911834
172	0.999290645	0.019754719	0.023696125	0.991741359	0.991182625
173	0.999290586	0.019736771	0.023698278	0.991741359	0.991182625
174	0.999290705	0.019718861	0.02369128	0.991741359	0.991182625
175	0.999291122	0.019700069	0.023686115	0.991741359	0.991182625
176	0.999306262	0.019584663	0.02363421	0.991702378	0.991092503
177	0.999328732	0.019402958	0.023500053	0.991779745	0.991182625
178	0.999328613	0.019375181	0.023501299	0.991779745	0.991182625
179	0.999331057	0.019296268	0.023453493	0.991779745	0.991182625
180	0.999331057	0.019278601	0.023453726	0.991779745	0.991182625
181	0.999330938	0.019252831	0.023448559	0.991779745	0.991182625
182	0.999331236	0.019223299	0.023435241	0.991857767	0.991182625
183	0.999325514	0.019097626	0.023345452	0.991975129	0.991181791
184	0.999324322	0.018970951	0.023285905	0.991897106	0.991091728
185	0.999324441	0.018953612	0.023279201	0.991897106	0.991091728



186	0.99932611	0.018936533	0.023264341	0.991897106	0.991091728
187	0.99932605	0.018919649	0.02326699	0.991897106	0.991091728
188	0.999332368	0.018804768	0.023192924	0.991897106	0.991091728
189	0.999332607	0.018787755	0.023184918	0.991897106	0.991091728
190	0.999332488	0.018771313	0.023185298	0.991897106	0.991091728
191	0.999368012	0.018652605	0.023041492	0.991780043	0.991091728
192	0.999368012	0.018636314	0.023041509	0.991780043	0.991091728
193	0.999366462	0.018609634	0.023038249	0.991779745	0.991091728
194	0.999369502	0.018578226	0.023035552	0.991779745	0.991091728
195	0.999373913	0.018460065	0.022955904	0.991974831	0.991091728
196	0.999379516	0.018443326	0.022940619	0.991974831	0.991091728
197	0.999379456	0.018427642	0.022943374	0.991974831	0.991091728
198	0.999386072	0.018330304	0.022901129	0.99193579	0.991091728
199	0.999387622	0.018120404	0.022721	0.99193579	0.991091728
200	0.999387622	0.01810478	0.02272097	0.99193579	0.991091728
201	0.99938792	0.018074289	0.022689521	0.991974831	0.991091728
202	0.999395907	0.017994896	0.02265786	0.99193579	0.991091728
203	0.999395728	0.017960604	0.022657821	0.99193579	0.991091728
204	0.999396026	0.017905854	0.02262787	0.99193579	0.991091728
205	0.999396086	0.017881772	0.022623779	0.991975129	0.991091728
206	0.999396086	0.017866693	0.022623768	0.991975129	0.991091728
207	0.999397993	0.017786341	0.02256386	0.99201417	0.991091728
208	0.999401808	0.017745834	0.022524467	0.99201417	0.991091728
209	0.999397933	0.017665122	0.022473911	0.99201417	0.991091728
210	0.999397933	0.01765018	0.022473915	0.99201417	0.991091728
211	0.999395311	0.017573884	0.022428166	0.992131233	0.991091728
212	0.999395311	0.01755845	0.022428166	0.992131233	0.991091728
213	0.999395311	0.017533662	0.022423904	0.992131233	0.991091728
214	0.99939537	0.017514268	0.022419026	0.992209315	0.991091728
215	0.999397099	0.017405737	0.02237872	0.992287397	0.991091728
216	0.999397099	0.017391546	0.022381589	0.992287397	0.991091728
217	0.999396861	0.017351275	0.022365836	0.992326438	0.991091728
218	0.999393225	0.01725303	0.022297496	0.992365539	0.991091728
219	0.999400079	0.017137077	0.022204617	0.992365539	0.991091728
220	0.999400079	0.01712255	0.022206929	0.992365539	0.991091728
221	0.999400318	0.017108684	0.022200467	0.992365539	0.991091728
222	0.999400258	0.017067056	0.022174986	0.992365837	0.991091728
223	0.999400198	0.017053042	0.022172093	0.992365837	0.991091728
224	0.999400198	0.017039649	0.022172093	0.992365837	0.991091728
225	0.999400198	0.017026478	0.022172093	0.992365837	0.991091728
226	0.999409616	0.016933104	0.022133199	0.992365539	0.991091728
227	0.999409795	0.016919982	0.022129489	0.992365539	0.991091728
228	0.999409795	0.016907001	0.022129467	0.992365539	0.991091728
229	0.999410212	0.016784063	0.022065116	0.992365539	0.991091728
230	0.9994151	0.016692078	0.022005454	0.992365837	0.991091728
231	0.999418795	0.016617676	0.021940364	0.992365837	0.991091728
232	0.999416113	0.016576851	0.021938648	0.992365837	0.991091728

233	0.999415696	0.016544936	0.021919515	0.992326736	0.991091728
234	0.999417722	0.016485669	0.021871971	0.992365837	0.991091728
235	0.999417663	0.016465979	0.021868704	0.992365837	0.991091728
236	0.999417603	0.016440433	0.021867093	0.992366135	0.991091728
237	0.999417841	0.016427929	0.021856423	0.992366135	0.991091728
238	0.99942112	0.016415661	0.021837734	0.992366135	0.991091728
239	0.999418914	0.016338635	0.021808626	0.992327034	0.991091728
240	0.999418914	0.016326485	0.021808635	0.992327034	0.991091728
241	0.999419093	0.016301822	0.021799408	0.992327034	0.991091728
242	0.999419093	0.016287919	0.021798138	0.992327034	0.991091728
243	0.999419391	0.016237155	0.02175368	0.992327034	0.991362095
244	0.999419391	0.016225388	0.021753695	0.992327034	0.991362095
245	0.999419451	0.016213877	0.021749185	0.992327034	0.991362095
246	0.999420524	0.016202588	0.021736922	0.992327034	0.991362095
247	0.999420464	0.016191453	0.02174074	0.992327034	0.991362095
248	0.999428332	0.016123291	0.021717828	0.992326736	0.991362095
249	0.999428272	0.016078567	0.021704933	0.992365837	0.991362095
250	0.999427795	0.016065611	0.021703677	0.992366135	0.991362095
251	0.999432683	0.01600652	0.021654096	0.992366135	0.991362095
252	0.999436259	0.015927382	0.021597723	0.992405176	0.991362095
253	0.999438226	0.015914582	0.02159078	0.992405176	0.991362095
254	0.999442935	0.015800908	0.021486666	0.992405176	0.991362095
255	0.999442935	0.015789911	0.021486625	0.992405176	0.991362095
256	0.999444008	0.015726924	0.021437852	0.992405176	0.991362095
257	0.999444366	0.015685096	0.021439897	0.992483258	0.991362095
258	0.999445021	0.015674211	0.021434855	0.992483258	0.991362095
259	0.999452472	0.015582276	0.021376882	0.992639542	0.991362095
260	0.999453545	0.015571455	0.021374334	0.992639542	0.991362095
261	0.999454021	0.015505261	0.021352779	0.992639244	0.991362095
262	0.999454021	0.015474286	0.02134995	0.992756486	0.991271913
263	0.999454021	0.015463639	0.021348532	0.992756486	0.991271913
264	0.999453962	0.015447821	0.021348186	0.992756784	0.991271913
265	0.999456048	0.015382576	0.021325475	0.992717683	0.991362095
266	0.999456048	0.015372002	0.021325488	0.992717683	0.991362095
267	0.999456227	0.015339943	0.021297943	0.992756784	0.991452217
268	0.999456167	0.015322738	0.021290839	0.992757022	0.991452992
269	0.999456167	0.015312456	0.021290867	0.992757022	0.991452992
270	0.999457836	0.015249917	0.021287004	0.992874324	0.991452992
271	0.999457777	0.015239813	0.021288933	0.992874324	0.991452992
272	0.999464214	0.015178964	0.021240974	0.992835224	0.991452992
273	0.999464571	0.01515262	0.021239685	0.992835224	0.991452992
274	0.999464333	0.015128244	0.021235939	0.992835224	0.991452992
275	0.999461532	0.015053035	0.021167481	0.992913365	0.991452992
276	0.99946636	0.014985909	0.021073334	0.992952228	0.991452992
277	0.999466062	0.014937249	0.02105242	0.992991269	0.991452992
278	0.999466062	0.014927222	0.021052433	0.992991269	0.991452992
279	0.999466419	0.014901649	0.021045933	0.992991269	0.991452992

280	0.999465883	0.014878224	0.021042766	0.993030369	0.991543174
281	0.999465823	0.014868437	0.021042746	0.993030369	0.991543174
282	0.999466419	0.014854426	0.021030713	0.993030369	0.991543174
283	0.999464333	0.014701796	0.020924201	0.99306953	0.991452992
284	0.99946034	0.014579928	0.020831712	0.993069768	0.991452992
285	0.999465287	0.014522502	0.020799741	0.99310863	0.991452992
286	0.999470294	0.014508157	0.020784536	0.993147731	0.991452992
287	0.999472678	0.014498653	0.020778852	0.993147731	0.991452992
288	0.999471486	0.01445961	0.020768065	0.993147731	0.991453767
289	0.999467194	0.01436137	0.020668298	0.99310863	0.991543889
290	0.999467134	0.014346466	0.020669049	0.993147731	0.991543889
291	0.999467671	0.01429273	0.020643441	0.993147731	0.991543889
292	0.999471247	0.014229964	0.020620348	0.993225932	0.991543174
293	0.999471307	0.014201468	0.020605473	0.993225932	0.991543174
294	0.999471307	0.014192095	0.020605411	0.993225932	0.991543174
295	0.999471366	0.014182937	0.02060074	0.993225932	0.991543174
296	0.999473333	0.01410969	0.02054256	0.993225932	0.991452992
297	0.999476373	0.014100165	0.020539474	0.993225932	0.991452217
298	0.999478996	0.014088219	0.020526044	0.993225932	0.991452217
299	0.999478936	0.014070816	0.020527439	0.993225932	0.991452217
300	0.999481678	0.014053321	0.020513523	0.993265092	0.991452217
301	0.99948138	0.014008803	0.020493884	0.993304193	0.991452217
302	0.99948138	0.013997266	0.02049382	0.993304193	0.991452217
303	0.999482095	0.013986091	0.020488024	0.993304193	0.991452217
304	0.999486387	0.013929144	0.020423492	0.993304193	0.991542399
305	0.999486387	0.013918441	0.020423518	0.993304193	0.991542399
306	0.999486387	0.013905121	0.020417774	0.993304431	0.991542399
307	0.999484897	0.013807974	0.020338174	0.993343592	0.991542399
308	0.99948597	0.013769113	0.020319007	0.993343592	0.991542399
309	0.999485731	0.013701378	0.020271979	0.993382692	0.991542399
310	0.99948591	0.013684452	0.020274814	0.993343592	0.991542399
311	0.99948591	0.013670914	0.020274227	0.993382692	0.991542399
312	0.999492645	0.013615985	0.020257685	0.993421853	0.991542399
313	0.999492645	0.013607743	0.020257568	0.993421853	0.991542399
314	0.999494851	0.01354205	0.020229211	0.993539214	0.991542399
315	0.999495983	0.013531746	0.020219984	0.993539214	0.991542399
316	0.999495924	0.013517288	0.020216852	0.993578374	0.991542399
317	0.999499023	0.013471612	0.020179989	0.993539214	0.991542399
318	0.999499023	0.013461746	0.020180512	0.993539512	0.991542399
319	0.999501169	0.01342083	0.020161539	0.993578613	0.991542399
320	0.999497771	0.013399377	0.020160364	0.993617773	0.991542399
321	0.999496341	0.013374061	0.020155923	0.993656933	0.991542399
322	0.999496222	0.013355202	0.02015519	0.993696094	0.991632581
323	0.999497175	0.013321323	0.020139797	0.993656933	0.991632581
324	0.999496222	0.013291791	0.020146763	0.993735254	0.991632581
325	0.999496341	0.013204626	0.020048624	0.993813515	0.991632581
326	0.999496281	0.013187195	0.020046933	0.993813515	0.991632581

327	0.999496341	0.013179376	0.020043507	0.993813515	0.991632581
328	0.999496281	0.013166633	0.02004274	0.993813515	0.991632581
329	0.99949646	0.013158963	0.020038184	0.993813515	0.991632581
330	0.999497652	0.013148849	0.020029068	0.993813515	0.991632581
331	0.999497652	0.01313999	0.020028945	0.993813515	0.991632581
332	0.999497652	0.013127909	0.020026742	0.993852675	0.991632581
333	0.999495864	0.013071638	0.020001169	0.993891895	0.991632581
334	0.999497116	0.01306213	0.019988703	0.993891895	0.991632581
335	0.999498248	0.013028494	0.019979252	0.993813515	0.991632581
336	0.999498069	0.012993476	0.019965488	0.993891895	0.991722763
337	0.99949789	0.012977206	0.01996547	0.993931055	0.991722763
338	0.99949801	0.01296994	0.019961685	0.993931055	0.991722763
339	0.999503016	0.012906472	0.019925332	0.994009376	0.991722763
340	0.999503016	0.012896877	0.019925328	0.994009376	0.991722763
341	0.999504805	0.012857114	0.019893723	0.994009376	0.991722763
342	0.999504685	0.012845251	0.019894792	0.994048536	0.991722763
343	0.999504685	0.01283809	0.019892057	0.994048536	0.991722763
344	0.999504864	0.012829609	0.019885244	0.994048536	0.991722763
345	0.999504864	0.01281842	0.019878346	0.994048536	0.991722763
346	0.999515414	0.012781183	0.019830422	0.994048536	0.991722763
347	0.999515414	0.012774363	0.019830471	0.994048536	0.991722763
348	0.999513805	0.012695281	0.019745111	0.994048774	0.991722763
349	0.999507666	0.012678456	0.019747607	0.994048774	0.991722763
350	0.999507606	0.012666463	0.019744499	0.994048774	0.991722763
351	0.999507964	0.012659656	0.019737026	0.994048774	0.991722763
352	0.999508083	0.012648677	0.019735813	0.994087994	0.991722763
353	0.999507427	0.012632974	0.019730201	0.994166315	0.991722763
354	0.99950844	0.012523179	0.019595386	0.994087994	0.991542399
355	0.999510884	0.012393516	0.019522525	0.994205296	0.991542399
356	0.999510884	0.012384865	0.019522227	0.994205296	0.991542399
357	0.999511003	0.012372687	0.01951568	0.994205296	0.991541624
358	0.999509335	0.012297278	0.019435465	0.994244695	0.991541624
359	0.999509335	0.012290604	0.019435477	0.994244695	0.991541624
360	0.999510169	0.012251125	0.019423185	0.994322896	0.991541624
361	0.999511719	0.012233939	0.019418454	0.994323134	0.991541624
362	0.999512136	0.012201989	0.019396979	0.994323134	0.991541624
363	0.999514401	0.012194693	0.019392168	0.994323134	0.991541624
364	0.999517262	0.012137244	0.019314539	0.994283915	0.991541624
365	0.999517322	0.012129697	0.019311488	0.994283915	0.991541624
366	0.999516428	0.012068005	0.019261273	0.994244695	0.991541624
367	0.999516428	0.012057629	0.019261269	0.994244695	0.991541624
368	0.999516606	0.012046828	0.019248096	0.994283915	0.991541624
369	0.999518514	0.012040428	0.019242484	0.994283915	0.991541624
370	0.999518514	0.012031758	0.019240882	0.994323134	0.991541624
371	0.999518991	0.011996903	0.019222504	0.994440734	0.991541624
372	0.999518752	0.011975739	0.019219592	0.994440734	0.991541624
373	0.999519646	0.011912622	0.01919207	0.994597554	0.991631806

374	0.999519587	0.011906346	0.019192429	0.994597554	0.991631806
375	0.999516666	0.011853577	0.01915781	0.994832933	0.991722763
376	0.999518216	0.011845734	0.019147679	0.994872212	0.991722763
377	0.999519348	0.011791277	0.0191113	0.994793713	0.991722763
378	0.999519765	0.011758002	0.019080415	0.994832933	0.991722763
379	0.999519765	0.011745715	0.019079894	0.994872212	0.991722763
380	0.999520123	0.011739563	0.019071694	0.994872212	0.991722763
381	0.999520838	0.011733578	0.019071031	0.994950891	0.991722763
382	0.999525011	0.011688287	0.019031184	0.995029569	0.991722763
383	0.999523699	0.011632047	0.018975629	0.99502939	0.991812944
384	0.999518216	0.011565038	0.018935643	0.995186448	0.991812944
385	0.999518096	0.011558929	0.018937759	0.995186448	0.991812944
386	0.999518096	0.011549551	0.018939279	0.995225668	0.991812944
387	0.999518096	0.011543636	0.018936606	0.995422065	0.991812944
388	0.999518216	0.011468733	0.018902782	0.995304227	0.991812229
389	0.999518216	0.011462881	0.018900426	0.995461524	0.991902471
390	0.999517977	0.011450151	0.018894259	0.995422244	0.991902471
391	0.999520123	0.01141042	0.018880229	0.995461524	0.991902471
392	0.999520063	0.011363083	0.018855216	0.9955796	0.991902471
393	0.999520004	0.01135721	0.018857334	0.995697498	0.991902471
394	0.999520004	0.011347892	0.018857075	0.995736778	0.991902471
395	0.999521077	0.011338621	0.018847378	0.995736778	0.991902471
396	0.999520838	0.011262727	0.018805882	0.995500624	0.991901755
397	0.999520838	0.011256998	0.018807137	0.99565798	0.991901755
398	0.999521196	0.0112464	0.018786525	0.99569732	0.991901755
399	0.999521196	0.011240791	0.018790474	0.995894015	0.991901755
400	0.999520838	0.011224683	0.018786235	0.995894015	0.991901755
401	0.999520898	0.011218918	0.01878312	0.996090651	0.991901755
402	0.999520719	0.011209844	0.018784206	0.996051311	0.991901755
403	0.999519885	0.011183707	0.018781716	0.99605149	0.991901755
404	0.999519467	0.011153544	0.01877917	0.996012151	0.991901755
405	0.999519527	0.011142385	0.018776087	0.996090829	0.991901755
406	0.999519706	0.011136879	0.018769145	0.996287525	0.991901755
407	0.999520481	0.011125918	0.018759375	0.996248186	0.991901755
408	0.999520421	0.011120479	0.018762505	0.996366203	0.991901755
409	0.999520481	0.011115155	0.018760677	0.996366203	0.991901755
410	0.999520659	0.011095342	0.018755605	0.996444941	0.991901755
411	0.999520659	0.011086482	0.018754335	0.996444941	0.991901755
412	0.999521017	0.011020415	0.018727411	0.99648428	0.991901755
413	0.999521196	0.011003666	0.01872367	0.99648428	0.991901755
414	0.999521136	0.010998389	0.018727724	0.996523678	0.991901755
415	0.99951762	0.010930083	0.018674957	0.996681154	0.991901755
416	0.999517679	0.010924717	0.018674625	0.996681154	0.991901755
417	0.99951762	0.010915417	0.01867673	0.996681154	0.991901755
418	0.99951756	0.010896235	0.018675921	0.996681154	0.991901755
419	0.99951756	0.010891064	0.018676061	0.996681273	0.991901755
420	0.999516487	0.010863209	0.018669521	0.996681273	0.991901755

421	0.999516606	0.010857244	0.018664224	0.996681273	0.991901755
422	0.999516666	0.010851524	0.018659176	0.996681273	0.991901755
423	0.999516726	0.010846039	0.018651713	0.996681273	0.991901755
424	0.999517202	0.010841096	0.018647991	0.996681273	0.991901755
425	0.999518692	0.010822977	0.018638693	0.996681273	0.991901755
426	0.999518991	0.010804499	0.018630937	0.996602535	0.991901755
427	0.999516428	0.010786827	0.018632231	0.996681273	0.991991997
428	0.99951762	0.010770036	0.018623581	0.996681273	0.991991997
429	0.999517679	0.010761518	0.018618735	0.996681273	0.991991997
430	0.999517918	0.010749676	0.01861801	0.996720672	0.991991997
431	0.999517798	0.010732749	0.018611467	0.996720672	0.991991997
432	0.999517322	0.010716902	0.018605489	0.996720672	0.991991997
433	0.99951756	0.010701664	0.018597526	0.996720672	0.991991997
434	0.99951756	0.010695342	0.018599804	0.996720672	0.991991997
435	0.99951756	0.010684761	0.018601239	0.996720672	0.991991997
436	0.999516129	0.010660649	0.018599777	0.996681273	0.991991997
437	0.999516129	0.010651801	0.018592149	0.996681273	0.991991997
438	0.999516487	0.010626913	0.018569127	0.996720672	0.991991997
439	0.999517024	0.010621998	0.018565217	0.99676007	0.991991997
440	0.999518454	0.01057481	0.018540654	0.99676007	0.991992712
441	0.999521255	0.010554512	0.018524006	0.996838808	0.991992712
442	0.999521792	0.01054851	0.018516058	0.996838808	0.991992712
443	0.999523401	0.010536836	0.018511456	0.996838808	0.991992712
444	0.999523401	0.01053172	0.018511664	0.996838808	0.991992712
445	0.999523699	0.010516686	0.018497081	0.996838808	0.991992712
446	0.999523699	0.010490429	0.018485926	0.996838808	0.991992712
447	0.999524653	0.010485756	0.018481944	0.996838808	0.991992712
448	0.999524653	0.01047537	0.018480323	0.996878207	0.991992712
449	0.999525309	0.010439737	0.018450566	0.996878207	0.992083013
450	0.999525785	0.010426086	0.01844324	0.996878207	0.992083013
451	0.999524713	0.010414717	0.018447399	0.996878207	0.992083013
452	0.999524713	0.010407235	0.018448856	0.996878207	0.992083013
453	0.999524653	0.010402655	0.018453442	0.996878207	0.992083013
454	0.999525607	0.010384154	0.018447669	0.996957004	0.992083013
455	0.999524653	0.010324492	0.018431099	0.996957004	0.992083013
456	0.999524653	0.010319523	0.018428398	0.996996403	0.992083013
457	0.999524951	0.01030677	0.018422032	0.996996403	0.992083013
458	0.999525189	0.010294977	0.018415561	0.996996403	0.992083013
459	0.999525189	0.010286788	0.01841243	0.996996403	0.992083013
460	0.999525249	0.010282243	0.018410668	0.996996403	0.992083013
461	0.999524176	0.01022499	0.018348565	0.996996403	0.991992712
462	0.999525011	0.0101879	0.018328588	0.997035801	0.991992712
463	0.999525964	0.010182253	0.018321045	0.997035801	0.991992712
464	0.999525428	0.010174452	0.018320916	0.997035801	0.991992712
465	0.999525547	0.010163198	0.018315455	0.997035801	0.991992712
466	0.999526024	0.010158789	0.018311867	0.997035801	0.991992712
467	0.999528587	0.010111506	0.018274114	0.9970752	0.991992712

468	0.999528825	0.010097232	0.018272998	0.9970752	0.991992712
469	0.999528825	0.010092845	0.018277179	0.9970752	0.991992712
470	0.999528825	0.010084996	0.018273756	0.9970752	0.991992712
471	0.999528825	0.010080718	0.018273704	0.9970752	0.991992712
472	0.999528825	0.010073522	0.018274363	0.9970752	0.991992712
473	0.999528289	0.01005049	0.018271968	0.9970752	0.991992712
474	0.99952811	0.010031802	0.018274667	0.9970752	0.991992712
475	0.99952811	0.010027531	0.018274764	0.9970752	0.991992712
476	0.999528527	0.010002114	0.018265808	0.9970752	0.991992712
477	0.999528527	0.009992448	0.018267419	0.9970752	0.991992712
478	0.999526083	0.00995591	0.018258603	0.997154057	0.991992712
479	0.999526024	0.009951757	0.018257314	0.997154057	0.991992712
480	0.999526024	0.009939102	0.018248772	0.997154057	0.991992712
481	0.999526381	0.009917857	0.018221971	0.997154057	0.991992712
482	0.999528885	0.009858737	0.018172553	0.997154176	0.991992712
483	0.999529064	0.009847813	0.01816237	0.997154176	0.991992712
484	0.999529421	0.009843657	0.018156216	0.997154176	0.991992712
485	0.999529362	0.009837	0.018158071	0.997154176	0.991992712
486	0.999525011	0.009812731	0.018158015	0.997154176	0.991992712
487	0.99952513	0.009808623	0.01815502	0.997154176	0.991992712
488	0.999524653	0.009795291	0.018151619	0.997154176	0.991992712
489	0.999524713	0.00978272	0.018149231	0.997154176	0.991992712
490	0.999523044	0.009762281	0.018149676	0.997193575	0.991992712
491	0.999523282	0.009752132	0.01814417	0.997193575	0.991992712
492	0.999523282	0.009747623	0.018144688	0.997193575	0.991992712
493	0.999523282	0.009743568	0.018144526	0.997193575	0.991992712
494	0.999523222	0.009727677	0.01814224	0.997193575	0.991992712
495	0.99952358	0.009705188	0.018133698	0.997193575	0.991992712
496	0.999523878	0.009679536	0.01813248	0.997193575	0.991992712
497	0.99952358	0.009656729	0.01812659	0.997193575	0.991992712
498	0.999524474	0.009652802	0.01812179	0.997193575	0.991992712
499	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
500	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
501	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
502	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
503	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
504	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
505	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
506	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
507	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
508	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
509	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
510	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
511	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
512	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
513	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
514	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

985	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
986	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
987	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
988	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
989	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
990	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
991	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
992	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
993	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
994	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
995	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
996	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
997	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
998	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712
999	0.999524474	0.009652786	0.018121786	0.997193575	0.991992712

## CatBoost IB

Step	AUC	Logloss Learn	Logloss Test	Precision Learn	Precision Test
0	0.993029058	0.503764451	0.503784776	0.984116375	0.985766411
1	0.995408595	0.370741665	0.370998979	0.981353521	0.982558131
2	0.994592786	0.269502908	0.269719064	0.981443882	0.982559204
3	0.995493531	0.20604749	0.205997676	0.982442439	0.983892858
4	0.996165693	0.166116372	0.165979937	0.986180902	0.986742914
5	0.996746242	0.135318354	0.135143206	0.987185001	0.988174319
6	0.996719778	0.114144117	0.113880657	0.987189054	0.988176465
7	0.99694854	0.093528993	0.093206555	0.987266183	0.988177538
8	0.996969163	0.083204649	0.082875125	0.987157822	0.9880898
9	0.996769667	0.074170634	0.073835187	0.987157345	0.988088727
10	0.997048974	0.065178886	0.064761832	0.987155795	0.988088727
11	0.997451961	0.059901349	0.05942839	0.987129688	0.988098502
12	0.997584701	0.05517694	0.054596458	0.987136245	0.988107145
13	0.997617662	0.052398164	0.051749691	0.987136245	0.988107145
14	0.997625351	0.048201922	0.047485497	0.987136245	0.988107145
15	0.997627258	0.047236886	0.04648532	0.987100542	0.988107145
16	0.997643769	0.045284517	0.044538055	0.987136722	0.988107145
17	0.998012006	0.044250336	0.043371044	0.987333357	0.988107145
18	0.998014927	0.043135941	0.042201046	0.987294614	0.98801744
19	0.998025894	0.042632785	0.041620713	0.9853338	0.986776531
20	0.998017013	0.041315917	0.040291447	0.985414863	0.986692011
21	0.998011649	0.040875863	0.039872445	0.985337794	0.986603916
22	0.998076141	0.040264819	0.039252933	0.985684693	0.987141192
23	0.998047829	0.039005678	0.038079884	0.985375762	0.986426592
24	0.998057306	0.038441714	0.037524045	0.985838354	0.986871898
25	0.998065412	0.03818341	0.037377518	0.985722661	0.986783743
26	0.998068273	0.037882004	0.03710191	0.986146986	0.987051785
27	0.998102486	0.037639685	0.036860961	0.986185551	0.98714
28	0.99810493	0.037401702	0.036665581	0.986186087	0.987229407
29	0.998172045	0.036990017	0.03634499	0.986263871	0.987234056
30	0.998179317	0.036608856	0.035963967	0.986611366	0.98794961
31	0.998197198	0.036313649	0.035715561	0.986495495	0.987771749
32	0.998272061	0.035897098	0.035352703	0.986456871	0.987771749
33	0.99832952	0.035282709	0.03472016	0.98645848	0.987951815
34	0.998379767	0.034896385	0.0343749	0.98645848	0.987951815
35	0.998379588	0.034778375	0.034333225	0.986419857	0.987862349
36	0.998385668	0.034678705	0.034306329	0.986419857	0.987683415
37	0.99835825	0.033996753	0.033646733	0.987501442	0.988308847
38	0.99835813	0.033686861	0.033396147	0.987539172	0.988308847
39	0.99835819	0.033584431	0.033343613	0.987578869	0.988488019
40	0.998376369	0.033499807	0.033291765	0.987657726	0.988399506
41	0.998376369	0.033421241	0.033286311	0.987657726	0.988399506
42	0.998391032	0.033240754	0.033127025	0.987541616	0.988399506
43	0.998378336	0.0331017	0.033025261	0.987657726	0.988489091
44	0.998492241	0.032488093	0.032332327	0.987890899	0.988580763

45	0.998501718	0.032180704	0.0319837	0.987968326	0.988580763
46	0.998525321	0.032106522	0.031943992	0.987968326	0.988670349
47	0.998528421	0.032024223	0.03190428	0.987929642	0.988580763
48	0.99852854	0.031946111	0.031889465	0.987968326	0.988580763
49	0.99854517	0.031383496	0.031385731	0.98858732	0.989294112
50	0.99857527	0.031023422	0.030960085	0.989014864	0.989653289
51	0.998582363	0.030950872	0.030937694	0.988976061	0.989653289
52	0.998593569	0.030892175	0.030907786	0.988976061	0.989653289
53	0.998594463	0.030805741	0.030847663	0.989170074	0.990192533
54	0.998595119	0.030750392	0.030833464	0.989208937	0.990192533
55	0.998592496	0.030592907	0.0307514	0.989286542	0.990192533
56	0.998587966	0.030395407	0.030603984	0.989364207	0.990282416
57	0.998593867	0.030341832	0.030573536	0.989403009	0.990282416
58	0.998611689	0.030251702	0.030485095	0.989441872	0.990282416
59	0.998611808	0.030203782	0.030475929	0.989441872	0.990282416
60	0.99864459	0.030041154	0.030318851	0.989480734	0.990192533
61	0.998645127	0.029985558	0.030307408	0.989480734	0.990192533
62	0.998647332	0.02989505	0.030232484	0.989558399	0.990192533
63	0.998628974	0.029461522	0.029863518	0.989675343	0.990192533
64	0.998639047	0.029377414	0.029787375	0.989636481	0.990193427
65	0.998648107	0.02916912	0.029645028	0.989674926	0.990193427
66	0.998624384	0.028965687	0.029546639	0.990180314	0.990641475
67	0.998618007	0.028908124	0.029521119	0.990141392	0.990641475
68	0.998641312	0.028637655	0.029194327	0.990258098	0.990641475
69	0.998645604	0.028547814	0.029128058	0.990258098	0.990641475
70	0.998645663	0.028507989	0.029120319	0.99025768	0.990641475
71	0.998646855	0.028456969	0.029098148	0.99025768	0.990641475
72	0.998649001	0.028406609	0.029060049	0.99025768	0.990641475
73	0.998649955	0.028359545	0.029040208	0.990258098	0.990641475
74	0.998646915	0.028101787	0.028830454	0.99029547	0.990642309
75	0.998643756	0.02799223	0.028756851	0.99029547	0.990642309
76	0.998643756	0.02795223	0.028756829	0.99029547	0.990642309
77	0.998648167	0.027911572	0.028735476	0.99029547	0.990642309
78	0.998648107	0.027866714	0.028735727	0.990295827	0.990642309
79	0.998648763	0.027828446	0.028722547	0.990334749	0.990642309
80	0.998672485	0.027493851	0.028371625	0.990412176	0.990642309
81	0.998672485	0.027465999	0.02837179	0.990412176	0.990642309
82	0.998671353	0.027394611	0.028368108	0.990490019	0.990642309
83	0.998672664	0.027353248	0.028347388	0.990490437	0.990642309
84	0.998677909	0.0272657	0.028266637	0.990490437	0.990642309
85	0.998677909	0.027231576	0.028263245	0.990490437	0.990642309
86	0.99867934	0.027204897	0.028237438	0.990490437	0.990642309
87	0.99867934	0.027177319	0.028237602	0.990490437	0.990642309
88	0.998689115	0.027045082	0.028072817	0.990490437	0.990642309
89	0.998689115	0.027017903	0.028072912	0.990490437	0.990642309
90	0.998685122	0.026916886	0.027984845	0.990490794	0.990642309
91	0.998685122	0.026890753	0.027984915	0.990490794	0.990642309

92	0.998686612	0.026864225	0.027965128	0.990490794	0.990642309
93	0.998688161	0.026835231	0.027943671	0.990490794	0.990642309
94	0.998689413	0.026786003	0.027931636	0.990490794	0.990642309
95	0.998689413	0.026760438	0.027931681	0.990490794	0.990642309
96	0.998689413	0.02673365	0.027931718	0.990490794	0.990642309
97	0.998689413	0.026707191	0.02793175	0.990490794	0.990642309
98	0.998684525	0.026426919	0.027621798	0.990685821	0.990732312
99	0.998685241	0.026331574	0.027561462	0.990724742	0.990642309
100	0.998683691	0.026253037	0.027540809	0.990685821	0.990732312
101	0.998683691	0.026229599	0.027540727	0.990685821	0.990732312
102	0.998674095	0.026068166	0.027414376	0.990763664	0.990912378
103	0.998675048	0.026042664	0.027405092	0.990763664	0.990912378
104	0.998675048	0.026008226	0.027402451	0.990802586	0.990912378
105	0.998675048	0.025983203	0.027402496	0.990802586	0.990912378
106	0.998700082	0.025952358	0.027382853	0.990802586	0.990912378
107	0.998700082	0.025928887	0.027382817	0.990802586	0.990912378
108	0.998701096	0.025904514	0.027365552	0.990802586	0.990912378
109	0.998717546	0.025809372	0.027313316	0.990880489	0.990912378
110	0.998717546	0.025776455	0.027304033	0.990880489	0.990912378
111	0.998717546	0.025754955	0.027298899	0.990880489	0.990912378
112	0.998717546	0.025731383	0.027298979	0.990880489	0.990912378
113	0.998717844	0.02570653	0.027291181	0.990880489	0.990912378
114	0.998733044	0.02554054	0.027183682	0.990841568	0.990912378
115	0.998733044	0.025517888	0.027183758	0.990841568	0.990912378
116	0.998744309	0.025430858	0.027128773	0.990841568	0.990912378
117	0.998744845	0.025333351	0.027053598	0.990880489	0.990912378
118	0.998745143	0.025310427	0.027045725	0.990880489	0.990912378
119	0.998759449	0.025288688	0.027037397	0.990880489	0.990912378
120	0.998759389	0.025263794	0.027037542	0.990880489	0.990912378
121	0.998759329	0.025240695	0.027038125	0.990880489	0.990912378
122	0.998759449	0.025217569	0.027023496	0.990880847	0.99100244
123	0.998759449	0.025196023	0.02702353	0.990919828	0.99100244
124	0.998758376	0.025148138	0.027007461	0.99095875	0.99100244
125	0.998758376	0.025124932	0.027007481	0.99095875	0.99100244
126	0.998758316	0.025102958	0.027007619	0.99095875	0.99100244
127	0.998758376	0.025082314	0.026993515	0.99095875	0.99100244
128	0.998758376	0.025059847	0.026993575	0.99095875	0.99100244
129	0.998758554	0.025026951	0.026977701	0.99095875	0.99100244
130	0.998758495	0.025005072	0.026977835	0.99095875	0.99100244
131	0.998758495	0.024984214	0.02697783	0.99095875	0.99100244
132	0.998759449	0.024963045	0.02696011	0.99095875	0.99100244
133	0.998759449	0.024942154	0.026960265	0.99095875	0.99100244
134	0.998763025	0.024871495	0.02692192	0.990919828	0.99100244
135	0.998766422	0.024761748	0.026845545	0.990919828	0.99100244
136	0.998766303	0.02474119	0.026845723	0.990919828	0.99100244
137	0.998764098	0.024698818	0.026844408	0.990919828	0.99100244
138	0.998764098	0.024678545	0.026844444	0.990919828	0.99100244

139	0.998764098	0.024659323	0.026844425	0.990919828	0.99100244
140	0.998764098	0.024639541	0.026844405	0.990919828	0.99100244
141	0.998759389	0.024526168	0.026764626	0.990957677	0.99100244
142	0.998762786	0.024496701	0.026744124	0.990957677	0.99100244
143	0.998762786	0.02447816	0.026744079	0.990957677	0.99100244
144	0.998762786	0.024459276	0.026737083	0.990957677	0.99100244
145	0.998762727	0.024439022	0.026737401	0.990957677	0.99100244
146	0.998762846	0.024420502	0.026730914	0.990957677	0.99100244
147	0.998764813	0.024386728	0.026725028	0.990957677	0.99100244
148	0.998758972	0.024304416	0.026670795	0.990957677	0.99100244
149	0.998758852	0.024281794	0.026670005	0.990957677	0.99100244
150	0.998787344	0.0240769	0.026480224	0.990996659	0.99100244
151	0.998786509	0.023938948	0.026400743	0.990996659	0.99100244
152	0.998808265	0.023790423	0.026290255	0.99103564	0.99100244
153	0.998806059	0.023629667	0.026179001	0.99115324	0.991181791
154	0.99880594	0.023610527	0.026178373	0.99115324	0.991181791
155	0.998816967	0.023456784	0.026058177	0.991231203	0.991362095
156	0.998816967	0.023438646	0.026058232	0.991231203	0.991362095
157	0.998876095	0.022895962	0.025582816	0.991231203	0.991362095
158	0.998883426	0.022809746	0.025538359	0.991231203	0.991452217
159	0.998883367	0.022789545	0.025538519	0.991231203	0.991452217
160	0.998925626	0.022652712	0.025424108	0.991348445	0.991452217
161	0.998925507	0.022633923	0.02542468	0.991348445	0.991452217
162	0.998926401	0.022545703	0.025372472	0.991426408	0.991452992
163	0.998926878	0.022528006	0.025356669	0.991426408	0.991452992
164	0.998950481	0.02198511	0.024858424	0.991426408	0.991452992
165	0.998950481	0.021967128	0.024852114	0.991387427	0.991452992
166	0.998950481	0.021947691	0.024849942	0.991387427	0.991452992
167	0.998950541	0.021922745	0.024843941	0.991387427	0.991452992
168	0.998941123	0.021832986	0.024779318	0.991348445	0.991452992
169	0.998941183	0.021796461	0.024785953	0.991348445	0.991452992
170	0.998941183	0.021780046	0.024785792	0.991348445	0.991452992
171	0.998941183	0.021761909	0.02478442	0.991348445	0.991452992
172	0.998941183	0.021746192	0.024784286	0.991348445	0.991452992
173	0.998946488	0.021730674	0.02477704	0.991348445	0.991452992
174	0.998946548	0.021704787	0.024767783	0.991348445	0.991452992
175	0.998946786	0.021689724	0.024755392	0.991348445	0.991452992
176	0.998946786	0.021671865	0.024754414	0.991387427	0.991452992
177	0.99898982	0.021447485	0.024583377	0.991426408	0.99136287
178	0.998986006	0.021371733	0.024551801	0.991426408	0.991452992
179	0.998986006	0.021357099	0.024551824	0.991426408	0.991452992
180	0.99897933	0.0213337	0.024544228	0.991426408	0.991452992
181	0.998971641	0.021144094	0.024434188	0.991466463	0.991363645
182	0.998977065	0.021129277	0.024427338	0.991466463	0.991363645
183	0.998972654	0.021110632	0.024430616	0.991466463	0.991363645
184	0.998972714	0.021096287	0.024425006	0.991466463	0.991363645
185	0.998985469	0.020980911	0.024363289	0.991427422	0.991363645

186	0.998985469	0.020963993	0.024359023	0.991466463	0.991453767
187	0.998985469	0.020949859	0.024359023	0.991466463	0.991453767
188	0.998978078	0.020886047	0.024338167	0.991466463	0.99136287
189	0.998978078	0.020869279	0.024338176	0.991505444	0.991452992
190	0.998978078	0.020838447	0.024336364	0.991505444	0.991452992
191	0.998978734	0.020796303	0.02432153	0.991505444	0.99136287
192	0.998978734	0.020768287	0.024320072	0.991505444	0.99136287
193	0.998972237	0.020664157	0.02427621	0.991466463	0.99136287
194	0.998984754	0.020586969	0.02423485	0.991505444	0.99136287
195	0.998999298	0.020561228	0.024224196	0.991544425	0.991452992
196	0.998999417	0.020547366	0.024212789	0.991544425	0.991452992
197	0.999022543	0.020442002	0.024148008	0.991543412	0.991452217
198	0.999035597	0.020355711	0.024117775	0.991505444	0.991452992
199	0.999036431	0.02021466	0.024014343	0.991583109	0.991452217
200	0.999036431	0.020191444	0.024011254	0.991661072	0.991542399
201	0.999040246	0.020126984	0.023973316	0.991661429	0.991542399
202	0.999041021	0.020113612	0.023966821	0.991661429	0.991542399
203	0.999046504	0.020090602	0.023955872	0.991661429	0.991542399
204	0.999047041	0.020063229	0.023927256	0.991700411	0.991542399
205	0.999047041	0.020050194	0.023924397	0.991739452	0.991542399
206	0.999047101	0.020037455	0.023919523	0.991739452	0.991542399
207	0.999043465	0.019919483	0.023817349	0.991700411	0.991542399
208	0.999043345	0.019897984	0.023807157	0.991739452	0.991632581
209	0.999043345	0.019885588	0.023807155	0.991739452	0.991632581
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211	0.999035239	0.019781617	0.023755418	0.991778791	0.991632581
212	0.99903518	0.019765729	0.023757195	0.991778791	0.991632581
213	0.999038696	0.019750938	0.023749838	0.991778791	0.991632581
214	0.999057174	0.019630341	0.023666857	0.991895854	0.991632581
215	0.999050319	0.019538011	0.023622537	0.991856813	0.991542399
216	0.999051094	0.019523768	0.023612499	0.991895854	0.991632581
217	0.999051094	0.019511806	0.023612484	0.991895854	0.991632581
218	0.9990592	0.019392207	0.023550168	0.991856813	0.991632581
219	0.9990592	0.019378548	0.023547919	0.991856813	0.991632581
220	0.999063969	0.019303469	0.023511916	0.991934836	0.991632581
221	0.999064326	0.019289948	0.02350531	0.991934836	0.991632581
222	0.999064445	0.019270459	0.023495568	0.992012918	0.991632581
223	0.999064863	0.019250685	0.02349095	0.992012918	0.991632581
224	0.999038756	0.019080287	0.023367278	0.992051959	0.991632581
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226	0.999049664	0.019033046	0.023345642	0.992129683	0.991721988
227	0.999049962	0.019002795	0.023337768	0.992168725	0.991722763
228	0.999055803	0.018976258	0.023328507	0.992207766	0.991722763
229	0.999055803	0.01895874	0.023325175	0.992285907	0.991722763
230	0.999058902	0.018896358	0.023297468	0.992324948	0.991722763
231	0.999058902	0.018885288	0.023297371	0.992324948	0.991722763
232	0.999052167	0.018842641	0.023283072	0.99240309	0.991722763

233	0.999052167	0.018831728	0.023278803	0.99240309	0.991722763
234	0.999052167	0.018821228	0.023279084	0.99240309	0.991722763
235	0.999049723	0.018781049	0.023241991	0.992442429	0.991903186
236	0.999049783	0.01868476	0.023162773	0.992520571	0.991903186
237	0.999051332	0.018650817	0.023145512	0.992559612	0.991903186
238	0.999051332	0.018639779	0.023145143	0.992559612	0.991903186
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249	0.999066472	0.018107301	0.022928786	0.992559612	0.991902471
250	0.999067247	0.018047297	0.022909187	0.992559612	0.991902471
251	0.999067247	0.01803576	0.022908812	0.992598712	0.991902471
252	0.999067307	0.018026104	0.02290857	0.992598712	0.991902471
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254	0.999066412	0.017978679	0.022895444	0.992637813	0.991902471
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256	0.99906534	0.017937968	0.022879338	0.992637813	0.991902471
257	0.999054968	0.017891694	0.022856718	0.992598712	0.991902471
258	0.999055028	0.017882165	0.022852905	0.992598712	0.991902471
259	0.999054909	0.01786465	0.022850627	0.992598712	0.991902471
260	0.999056876	0.017834609	0.022828791	0.992598712	0.991902471
261	0.999056816	0.017818918	0.022825861	0.992598712	0.991902471
262	0.999056816	0.017809708	0.022825813	0.992598712	0.991902471
263	0.999057114	0.017789548	0.022823418	0.992637813	0.991902471
264	0.999057055	0.017780714	0.022823369	0.992637813	0.991902471
265	0.999057114	0.017771875	0.022817664	0.992637813	0.991902471
266	0.999055684	0.017721264	0.022807091	0.992637813	0.991902471
267	0.999055743	0.017712638	0.02279938	0.992637813	0.991902471
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271	0.999062836	0.017550176	0.022752419	0.992637813	0.991902471
272	0.999071121	0.017473407	0.02270492	0.992755353	0.991902471
273	0.999091268	0.017354572	0.022591053	0.992755353	0.991902471
274	0.999091148	0.017345	0.022591444	0.992755353	0.991902471
275	0.999091029	0.017329408	0.022590876	0.992755353	0.991903186
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278	0.999099135	0.017181424	0.02250573	0.992794454	0.991903186
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286	0.999095082	0.016996436	0.022424862	0.992911696	0.991903186
287	0.999095023	0.016987877	0.022429056	0.992911696	0.991903186
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289	0.999099612	0.016960144	0.022403438	0.992911696	0.991903186
290	0.999098003	0.016919557	0.022401091	0.993028998	0.991903186
291	0.999098003	0.016911011	0.022401566	0.993028998	0.991903186
292	0.999097943	0.016898943	0.022402836	0.993028998	0.991903186
293	0.999097943	0.016887058	0.022401683	0.993068159	0.991903186
294	0.999099255	0.016824605	0.0223458	0.99314636	0.991993427
295	0.999103189	0.016716421	0.022297256	0.993068159	0.991993427
296	0.999103189	0.016708044	0.022293266	0.993068159	0.991993427
297	0.999100327	0.016681055	0.022281693	0.993107259	0.991993427
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299	0.999094188	0.016497139	0.022098303	0.993224621	0.992264271
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302	0.999108911	0.016419459	0.02204963	0.993224621	0.992264271
303	0.999111235	0.016398061	0.022029823	0.993224859	0.992174685
304	0.999109209	0.016312469	0.021969596	0.993224859	0.992264986
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306	0.999159098	0.016159033	0.021861985	0.993224621	0.992264986
307	0.999159098	0.01615319	0.021856578	0.993224621	0.992264986
308	0.999159038	0.016141862	0.021857841	0.993224621	0.992264986
309	0.999164402	0.016133552	0.021846941	0.993224621	0.992264986
310	0.999164402	0.016124867	0.02184858	0.993263721	0.992264986
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314	0.999161959	0.016058318	0.021836394	0.993263721	0.992264271
315	0.99916321	0.016021488	0.021816911	0.993302882	0.992264271
316	0.99916327	0.01601417	0.02181517	0.993302882	0.992264271
317	0.999163389	0.016006771	0.021803282	0.993302882	0.992264271
318	0.99916333	0.015996292	0.021802371	0.993302882	0.992264271
319	0.99916333	0.01598894	0.021802079	0.993302882	0.992264271
320	0.999164402	0.015976774	0.021787794	0.993302882	0.992264271
321	0.999164402	0.015969664	0.021792149	0.993302882	0.992263556
322	0.999164402	0.015962483	0.021792457	0.993302882	0.992263556
323	0.999164402	0.015954623	0.021794062	0.993302882	0.992263556
324	0.999181092	0.015836168	0.021705974	0.993420303	0.992263556
325	0.999181092	0.015829055	0.021703385	0.993459404	0.992263556
326	0.999182522	0.015801098	0.021696288	0.993498564	0.992172539

327	0.999183178	0.015750196	0.021678727	0.993577123	0.992172539
328	0.999179423	0.01572597	0.021677518	0.993616283	0.992172539
329	0.999179602	0.015716653	0.021675926	0.993616283	0.992172539
330	0.999166787	0.015634833	0.02163681	0.993577123	0.992172539
331	0.999166846	0.01561995	0.021630013	0.993577123	0.992172539
332	0.999166846	0.015609457	0.021631753	0.993577123	0.992172539
333	0.999162972	0.01557272	0.021620328	0.993616521	0.992172539
334	0.999163032	0.015556342	0.021609511	0.993734002	0.9922629
335	0.999163032	0.0155495	0.021609558	0.993773162	0.9922629
336	0.999163032	0.015542877	0.02161378	0.993773162	0.9922629
337	0.999163747	0.015535762	0.021608081	0.993773162	0.9922629
338	0.999163747	0.015535709	0.021608055	0.993773162	0.9922629
339	0.999164701	0.015535503	0.021607958	0.993773162	0.9922629
340	0.999164701	0.015535499	0.021607962	0.993773162	0.9922629
341	0.999164701	0.015535427	0.02160803	0.993773162	0.9922629
342	0.999164701	0.01553541	0.021608047	0.993773162	0.9922629
343	0.999164701	0.015535374	0.021608081	0.993773162	0.9922629
344	0.99916476	0.015535303	0.021608148	0.993773162	0.9922629
345	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
346	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
347	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
348	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
349	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
350	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
351	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
352	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
353	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
354	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
355	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
356	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
357	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
358	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
359	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
360	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
361	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
362	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
363	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
364	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
365	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
366	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
367	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
368	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
369	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
370	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
371	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
372	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
373	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629

[illegible]

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[illegible]

985	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
986	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
987	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
988	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
989	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
990	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
991	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
992	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
993	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
994	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
995	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
996	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
997	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
998	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629
999	0.99916476	0.015535301	0.021608146	0.993773162	0.9922629



Tuned CatBoost TB

Step	AUC	Logloss Le	Logloss Tes	Precision L	Precision Test
0	0.996704	0.431841	0.431966	0.987602	0.987923
5	0.998258	0.076968	0.07661	0.987069	0.987846
10	0.998527	0.041309	0.040996	0.987887	0.988754
15	0.998708	0.031467	0.031263	0.989014	0.989656
20	0.998784	0.027798	0.027947	0.989598	0.990376
25	0.998834	0.026385	0.026967	0.989754	0.990644
30	0.998854	0.024091	0.025139	0.990143	0.991005
35	0.99885	0.023431	0.024988	0.990299	0.991006
40	0.998963	0.022428	0.024351	0.990728	0.991277
45	0.999068	0.02176	0.024044	0.990806	0.991187
50	0.999101	0.021129	0.023791	0.990923	0.991187
55	0.999204	0.020188	0.023087	0.991274	0.991366
60	0.999237	0.019395	0.022608	0.991586	0.991455
65	0.999231	0.019119	0.022576	0.991703	0.991455
70	0.999231	0.018898	0.022534	0.991821	0.991545
75	0.999261	0.018551	0.022432	0.991899	0.991545
80	0.999304	0.018123	0.02224	0.992172	0.991725
85	0.999323	0.017353	0.021861	0.992368	0.991815
90	0.999325	0.016988	0.021713	0.992602	0.991725
95	0.999331	0.016722	0.021639	0.992719	0.991815
100	0.999353	0.016441	0.02153	0.992876	0.991815
105	0.999355	0.016185	0.021447	0.992993	0.991815
110	0.999368	0.016119	0.021457	0.993071	0.991814
115	0.999379	0.01582	0.021299	0.993267	0.992084
120	0.999414	0.01541	0.020992	0.993463	0.992084
125	0.999411	0.015111	0.020838	0.993658	0.992084
130	0.99942	0.014954	0.020777	0.993697	0.992084
135	0.999421	0.014875	0.020753	0.993697	0.992174
140	0.999422	0.014803	0.020751	0.993776	0.992174
145	0.999424	0.014741	0.02074	0.993815	0.992173
150	0.999425	0.014697	0.020744	0.993815	0.992173
155	0.999419	0.014447	0.020694	0.993854	0.992173
160	0.999418	0.014413	0.020703	0.994011	0.992354
165	0.999435	0.014084	0.020516	0.994167	0.992444
170	0.999438	0.014009	0.020479	0.994246	0.992444
175	0.999437	0.013971	0.020516	0.994285	0.992442
180	0.999436	0.01395	0.020519	0.994285	0.992442
185	0.999435	0.01389	0.020532	0.994363	0.992442
190	0.999436	0.013813	0.020513	0.994403	0.992442
195	0.999441	0.01378	0.020506	0.994403	0.992442
200	0.999441	0.013768	0.020508	0.994403	0.992442
205	0.999456	0.013438	0.020257	0.994442	0.992442
210	0.999456	0.013407	0.020262	0.994442	0.992442
215	0.999456	0.013352	0.020257	0.994481	0.992442
220	0.999466	0.013068	0.020157	0.994599	0.992443

Tuned CatBoost IB

Step	AUC
0	0.997016
5	0.998152
10	0.998142
15	0.998574
20	0.998653
25	0.998639
30	0.998623
35	0.998568
40	0.998665
45	0.998785
50	0.998787
55	0.998786
60	0.998743
65	0.998744
70	0.998742
75	0.998772
80	0.998807
85	0.9988
90	0.998827
95	0.998854
99	0.998846

225	0.999469	0.013003	0.020141	0.994638	0.992442
230	0.999474	0.012929	0.020115	0.994756	0.992442
235	0.999477	0.012873	0.020119	0.994795	0.992442
240	0.999477	0.012855	0.020121	0.994834	0.992442
245	0.999477	0.012849	0.020122	0.994834	0.992442
250	0.999485	0.012617	0.020005	0.994952	0.992442
255	0.999484	0.01244	0.019868	0.994952	0.992442
260	0.999483	0.012431	0.019875	0.994952	0.992442
265	0.999481	0.01236	0.019862	0.99503	0.992533
270	0.999482	0.012326	0.019886	0.99503	0.992533
275	0.999484	0.012275	0.019856	0.99503	0.992443
280	0.999486	0.012193	0.019852	0.995109	0.992443
285	0.999487	0.011986	0.019737	0.995148	0.992443
290	0.999509	0.011414	0.019332	0.995266	0.992533
295	0.999509	0.011376	0.019327	0.995384	0.992533
300	0.999511	0.011334	0.019308	0.995501	0.992533
305	0.999511	0.011327	0.019307	0.995501	0.992533
310	0.999511	0.011285	0.019306	0.99558	0.992624
315	0.999522	0.010686	0.018753	0.995776	0.992534
320	0.999525	0.010491	0.018684	0.995816	0.992534
325	0.99952	0.010374	0.018675	0.995855	0.992534
330	0.99952	0.010366	0.018673	0.995855	0.992534
335	0.99952	0.010335	0.01867	0.995855	0.992534
340	0.999517	0.010255	0.018655	0.995894	0.992534
345	0.999517	0.010229	0.018658	0.995894	0.992624
350	0.999517	0.010227	0.018659	0.995894	0.992624
355	0.999517	0.010218	0.018662	0.995894	0.992624
360	0.999517	0.010196	0.018655	0.995934	0.992624
365	0.999517	0.010188	0.018659	0.995934	0.992624
370	0.999517	0.010185	0.018659	0.995934	0.992624
375	0.999518	0.010169	0.018649	0.996012	0.992624
380	0.999524	0.010015	0.018532	0.99613	0.992624
385	0.999526	0.009742	0.018334	0.996288	0.992715
390	0.999526	0.009735	0.018334	0.996288	0.992715
395	0.999526	0.009729	0.018336	0.996288	0.992715
400	0.999508	0.009593	0.018299	0.996248	0.992624
405	0.999507	0.00957	0.018294	0.996248	0.992624
410	0.999508	0.009484	0.018271	0.996248	0.992624
415	0.999508	0.009483	0.018272	0.996248	0.992715
420	0.999508	0.00948	0.018273	0.996248	0.992715
425	0.999508	0.009475	0.018271	0.996248	0.992624
430	0.999508	0.009471	0.018275	0.996248	0.992624
435	0.999508	0.009469	0.018274	0.996248	0.992624
440	0.999509	0.009466	0.01827	0.996288	0.992624
445	0.99952	0.009327	0.018137	0.996406	0.992624
450	0.999522	0.009215	0.0181	0.996484	0.992624
455	0.999549	0.008978	0.017955	0.996603	0.992624

460	0.999557	0.008919	0.017915	0.996642	0.992715
465	0.999562	0.008804	0.01786	0.996642	0.992715
470	0.999562	0.008792	0.017864	0.996642	0.992715
475	0.999562	0.008789	0.017867	0.996642	0.992715
480	0.999562	0.008787	0.017869	0.996642	0.992715
485	0.999561	0.008782	0.017878	0.996642	0.992715
490	0.999565	0.008716	0.017778	0.996642	0.992805
495	0.999564	0.008712	0.017783	0.996642	0.992805
499	0.999564	0.008712	0.017784	0.996642	0.992805











































Logloss Le	Logloss Tes	Precision L	Precision Test
0.264951	0.265029	0.987415	0.988296
0.035946	0.035994	0.988585	0.989017
0.028315	0.028646	0.990526	0.990907
0.02427	0.024737	0.990689	0.990916
0.022984	0.024182	0.991117	0.991006
0.021721	0.023566	0.991235	0.991186
0.021053	0.023192	0.991508	0.991366
0.020209	0.022902	0.991703	0.991546
0.019432	0.022463	0.992132	0.991996
0.017831	0.021244	0.993107	0.992445
0.017679	0.02113	0.993304	0.992355
0.017594	0.021116	0.993304	0.992265
0.017145	0.02105	0.993461	0.992446
0.01697	0.021047	0.993461	0.992446
0.016724	0.021032	0.993696	0.992446
0.01631	0.020835	0.993774	0.992627
0.01595	0.020729	0.993852	0.992717
0.015715	0.020791	0.994127	0.992715
0.014975	0.020509	0.994362	0.992714
0.014441	0.020188	0.994597	0.993076
0.014215	0.0202	0.994597	0.993076