Appendix A

Distribution Tables

Binomial Distribution

$$B_{n,p}(x) = \sum_{i=0}^{\lfloor x \rfloor} \binom{n}{i} p^i (1-p)^{n-i}$$

n=1	p=0.01	0.05	0.1	0.15	1/6	0.2	0.25	0.3	1/3	0.4	0.5
x=0	0.99	0.95	0.9	0.85	0.8333333	0.8	0.75	0.7	0.6666667	0.6	0.5

n=2	p=0.01	0.05	0.1	0.15	1/6	0.2	0.25	0.3	1/3	0.4	0.5
x=0	0.9801	0.9025	0.81	0.7225	0.6944444	0.64	0.5625	0.49	0.4444444	0.36	0.25
1	0.9999	0.9975	0.99	0.9775	0.9722222	0.96	0.9375	0.91	0.8888889	0.84	0.75

n=3	p=0.01	0.05	0.1	0.15	1/6	0.2	0.25	0.3	1/3	0.4	0.5
x=0	0.970299	0.857375	0.729	0.614125	0.5787037	0.512	0.421875	0.343	0.2962963	0.216	0.125
1	0.999702	0.992750	0.972	0.939250	0.9259259	0.896	0.843750	0.784	0.7407407	0.648	0.500
2	0.999999	0.999875	0.999	0.996625	0.9953704	0.992	0.984375	0.973	0.9629630	0.936	0.875

n=4	p=0.01	0.05	0.1	0.15	1/6	0.2	0.25	0.3	1/3	0.4	0.5
x=0	0.960596	0.8145062	0.6561	0.5220063	0.4822531	0.4096	0.3164063	0.2401	0.1975309	0.1296	0.0625
1	0.999408	0.9859812	0.9477	0.8904813	0.8680556	0.8192	0.7382812	0.6517	0.5925926	0.4752	0.3125
2	0.999996	0.9995188	0.9963	0.9880187	0.9837963	0.9728	0.9492188	0.9163	0.8888889	0.8208	0.6875
3	1.000000	0.9999938	0.9999	0.9994937	0.9992284	0.9984	0.9960938	0.9919	0.9876543	0.9744	0.9375

n=5	p=0.01	0.05	0.1	0.15	1/6	0.2	0.25	0.3	1/3	0.4	0.5
x=0	0.9509900	0.7737809	0.59049	0.4437053	0.4018776	0.32768	0.2373047	0.16807	0.1316872	0.07776	0.03125
1	0.9990199	0.9774075	0.91854	0.8352100	0.8037551	0.73728	0.6328125	0.52822	0.4609053	0.33696	0.18750
2	0.9999901	0.9988419	0.99144	0.9733881	0.9645062	0.94208	0.8964844	0.83692	0.7901235	0.68256	0.50000
3	1.0000000	0.9999700	0.99954	0.9977725	0.9966564	0.99328	0.9843750	0.96922	0.9547325	0.91296	0.81250
4	1.0000000	0.9999997	0.99999	0.9999241	0.9998714	0.99968	0.9990234	0.99757	0.9958848	0.98976	0.96875

n=6	p=0.01	0.05	0.1	0.15	1/6	0.2	0.25	0.3	1/3	0.4	0.5
x=0	0.9414801	0.7350919	0.531441	0.3771495	0.3348980	0.262144	0.1779785	0.117649	0.0877915	0.046656	0.015625
1	0.9985396	0.9672262	0.885735	0.7764843	0.7367755	0.655360	0.5339355	0.420175	0.3511660	0.233280	0.109375
2	0.9999804	0.9977702	0.984150	0.9526614	0.9377143	0.901120	0.8305664	0.744310	0.6803841	0.544320	0.343750
3	0.9999999	0.9999136	0.998730	0.9941148	0.9912980	0.983040	0.9624023	0.929530	0.8998628	0.820800	0.656250
4	1.0000000	0.9999982	0.999945	0.9996013	0.9993356	0.998400	0.9953613	0.989065	0.9821674	0.959040	0.890625
5	1.0000000	1.0000000	0.999999	0.9999886	0.9999786	0.999936	0.9997559	0.999271	0.9986283	0.995904	0.984375

n=7	p=0.01	0.05	0.1	0.15	1/6	0.2	0.25	0.3	1/3	0.4	0.5
x=0	0.9320653	0.6983373	0.4782969	0.3205771	0.2790816	0.2097152	0.1334839	0.0823543	0.05852766	0.0279936	0.0078125
1	0.9979690	0.9556195	0.8503056	0.7165841	0.6697960	0.5767168	0.4449463	0.3294172	0.26337449	0.1586304	0.0625000
2	0.9999660	0.9962430	0.9743085	0.9262348	0.9042245	0.8519680	0.7564087	0.6470695	0.57064472	0.4199040	0.2265625
3	0.9999997	0.9998064	0.9972720	0.9878968	0.9823674	0.9666560	0.9294434	0.8739640	0.82670325	0.7102080	0.5000000
4	1.0000000	0.9999940	0.9998235	0.9987784	0.9979960	0.9953280	0.9871216	0.9712045	0.95473251	0.9037440	0.7734375
5	1.0000000	0.9999999	0.9999936	0.9999305	0.9998714	0.9996288	0.9986572	0.9962092	0.99314129	0.9811584	0.9375000
6	1.0000000	1.0000000	0.9999999	0.9999983	0.9999964	0.9999872	0.9999390	0.9997813	0.99954275	0.9983616	0.9921875

A.1 Poisson Distribution

$$Po_\lambda(x) = \sum_{k=0}^{\lfloor x \rfloor} e^{-\lambda} \frac{\lambda^k}{k!}$$

x	λ =0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
0	0.9048374	0.8187308	0.7408182	0.6703200	0.6065307	0.5488116	0.4965853	0.4493290	0.4065697	0.3678794
1	0.9953212	0.9824769	0.9630637	0.9384481	0.9097960	0.8780986	0.8441950	0.8087921	0.7724824	0.7357589
2	0.9998453	0.9988515	0.9964005	0.9920737	0.9856123	0.9768847	0.9658584	0.9525774	0.9371431	0.9196986
3	0.9999962	0.9999432	0.9997342	0.9992237	0.9982484	0.9966419	0.9942465	0.9909201	0.9865413	0.9810118
4	0.9999999	0.9999977	0.9999842	0.9999388	0.9998279	0.9996055	0.9992145	0.9985887	0.9976559	0.9963402
5	1.0000000	0.9999999	0.9999992	0.9999960	0.9999858	0.9999611	0.9999100	0.9998157	0.9996565	0.9994058
6		1.0000000	1.0000000	0.9999998	0.9999990	0.9999967	0.9999911	0.9999793	0.9999566	0.9999168
7				1.0000000	0.9999999	0.9999998	0.9999992	0.9999979	0.9999952	0.9999898
8					1.0000000	1.0000000	0.9999999	0.9999998	0.9999995	0.9999989
9							1.0000000	1.0000000	1.0000000	0.9999999
10										1.0000000

x	λ =1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
0	0.3328711	0.3011942	0.2725318	0.2465970	0.2231302	0.2018965	0.1826835	0.1652989	0.1495686	0.1353353
1	0.6990293	0.6626273	0.6268231	0.5918327	0.5578254	0.5249309	0.4932455	0.4628369	0.4337490	0.4060058
2	0.9004163	0.8794871	0.8571125	0.8334977	0.8088468	0.7833585	0.7572232	0.7306211	0.7037204	0.6766764
3	0.9742582	0.9662310	0.9569045	0.9462747	0.9343575	0.9211865	0.9068106	0.8912916	0.8747022	0.8571235
4	0.9945647	0.9922542	0.9893370	0.9857467	0.9814241	0.9763177	0.9703852	0.9635933	0.9559186	0.9473470
5	0.9990321	0.9984998	0.9977694	0.9967989	0.9955440	0.9939597	0.9920006	0.9896220	0.9867808	0.9834364
6	0.9998512	0.9997489	0.9995964	0.9993777	0.9990740	0.9986642	0.9981249	0.9974306	0.9965539	0.9954662
7	0.9999799	0.9999630	0.9999357	0.9998935	0.9998304	0.9997396	0.9996123	0.9994385	0.9992065	0.9989033
8	0.9999976	0.9999951	0.9999909	0.9999837	0.9999723	0.9999546	0.9999283	0.9998903	0.9998366	0.9997626
9	0.9999997	0.9999994	0.9999988	0.9999978	0.9999959	0.9999929	0.9999880	0.9999806	0.9999696	0.9999535
10	1.0000000	0.9999999	0.9999999	0.9999997	0.9999994	0.9999990	0.9999982	0.9999969	0.9999948	0.9999917
11		1.0000000	1.0000000	1.0000000	0.9999999	0.9999999	0.9999997	0.9999995	0.9999992	0.9999986
12					1.0000000	1.0000000	1.0000000	0.9999999	0.9999999	0.9999998
13								1.0000000	1.0000000	1.0000000

x	λ =2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0
0	0.1224564	0.1108032	0.1002588	0.09071795	0.0820850	0.07427358	0.06720551	0.06081006	0.05502322	0.04978707
1	0.3796149	0.3545701	0.3308542	0.30844104	0.2872975	0.26738488	0.24866040	0.23107824	0.21459056	0.19914827
2	0.6496314	0.6227137	0.5960388	0.56970875	0.5438131	0.51842958	0.49362449	0.46945368	0.44596320	0.42319008
3	0.8386428	0.8193524	0.7993471	0.77872291	0.7575761	0.73600164	0.71409218	0.69193743	0.66962342	0.64723189
4	0.9378739	0.9275037	0.9162493	0.90413141	0.8911780	0.87742349	0.86290786	0.84767606	0.83177708	0.81526324
5	0.9795509	0.9750902	0.9700243	0.96432749	0.9579790	0.95096285	0.94326833	0.93488969	0.92582620	0.91608206
6	0.9941379	0.9925387	0.9906381	0.98840592	0.9858127	0.98282990	0.97943055	0.97558938	0.97128327	0.96649146
7	0.9985140	0.9980224	0.9974112	0.99666138	0.9957533	0.99466624	0.99337883	0.99186926	0.99011549	0.98809550
8	0.9996627	0.9995305	0.9993584	0.99913802	0.9988597	0.99851305	0.99808637	0.99756722	0.99694217	0.99619701
9	0.9999307	0.9998991	0.9998561	0.99979846	0.9997226	0.99962435	0.99949864	0.99933991	0.99914188	0.99889751
10	0.9999870	0.9999802	0.9999705	0.99995696	0.9999384	0.99991329	0.99987995	0.99983627	0.99977979	0.99970766
11	0.9999978	0.9999964	0.9999944	0.99999155	0.9999874	0.99998158	0.99997354	0.99996261	0.99994797	0.99992861
12	0.9999996	0.9999994	0.9999990	0.99999846	0.9999976	0.99999638	0.99999460	0.99999209	0.99998861	0.99998385
13	0.9999999	0.9999999	0.9999998	0.99999974	0.9999996	0.99999934	0.99999897	0.99999844	0.99999768	0.99999660
14	1.00000000	1.0000000	1.0000000	0.99999996	0.9999999	0.99999989	0.99999982	0.99999971	0.99999956	0.99999933
15				1.00000000	1.0000000	0.99999998	0.99999997	0.99999995	0.99999992	0.99999988
16						1.00000000	1.00000000	0.99999999	0.99999999	0.99999998
17								1.00000000	1.00000000	1.00000000

x	λ =3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
0	0.03019738	0.01831564	0.01110900	0.00673795	0.00408677	0.00247875	0.00150344	0.00091188	0.00055308	0.00033546
1	0.13588823	0.09157819	0.06109948	0.04042768	0.02656401	0.01735127	0.01127579	0.00729506	0.00470122	0.00301916
2	0.32084720	0.23810331	0.17357807	0.12465202	0.08837643	0.06196880	0.04303595	0.02963616	0.02025672	0.01375397
3	0.53663267	0.43347012	0.34229596	0.26502592	0.20169920	0.15120388	0.11184961	0.08176542	0.05914546	0.04238011
4	0.72544495	0.62883694	0.53210358	0.44049329	0.35751800	0.28505650	0.22367182	0.17299161	0.13206186	0.09963240
5	0.85761355	0.78513039	0.70293043	0.61596066	0.52891869	0.44567964	0.36904068	0.30070828	0.24143645	0.19123606
6	0.93471190	0.88932602	0.83105058	0.76218346	0.68603598	0.60630278	0.52652362	0.44971106	0.37815469	0.31337428
7	0.97326108	0.94886638	0.91341353	0.86662833	0.80948528	0.74397976	0.67275778	0.59871384	0.52463853	0.45296081
8	0.99012634	0.97863657	0.95974269	0.93190637	0.89435668	0.84723749	0.79157303	0.72909127	0.66196712	0.59254734
9	0.99668506	0.99186776	0.98290727	0.96817194	0.94622253	0.91607598	0.87738405	0.83049594	0.77640761	0.71662426
10	0.99898061	0.99716023	0.99333133	0.98630473	0.97474875	0.95737908	0.93316121	0.90147921	0.86223798	0.81588579
11	0.99971101	0.99908477	0.99759572	0.99454691	0.98901186	0.97990804	0.96612044	0.94665038	0.92075869	0.88807600
12	0.99992404	0.99972628	0.99919486	0.99798115	0.99554912	0.99117252	0.98397336	0.97300023	0.95733413	0.93620280
13	0.99998140	0.99992367	0.99974841	0.99930201	0.99831488	0.99637151	0.99289982	0.98718861	0.97843535	0.96581930
14	0.99999574	0.99998007	0.99992634	0.99977375	0.99940143	0.99859965	0.99704424	0.99428280	0.98973957	0.98274301
15	0.99999908	0.99999511	0.99997972	0.99993099	0.99979983	0.99949090	0.99884016	0.99759342	0.99539168	0.99176900
16	0.99999981	0.99999887	0.99999473	0.99998013	0.99993678	0.99982512	0.99956975	0.99904182	0.99804111	0.99628200
17	0.99999996	0.99999975	0.99999870	0.99999458	0.99998109	0.99994308	0.99984872	0.99963822	0.99921000	0.99840574
18	0.99999999	0.99999995	0.99999970	0.99999860	0.99999463	0.99998240	0.99994945	0.99987015	0.99969700	0.99934963
19	1.00000000	0.99999999	0.99999993	0.99999966	0.99999855	0.99999482	0.99998391	0.99995560	0.99988925	0.99974706
20		1.00000000	0.99999999	0.99999992	0.99999963	0.99999855	0.99999511	0.99998551	0.99996134	0.99990603
21			1.00000000	0.99999998	0.99999991	0.99999961	0.99999858	0.99999547	0.99998709	0.99996659
22				1.00000000	0.99999998	0.99999990	0.99999961	0.99999865	0.99999587	0.99998861
23					1.00000000	0.99999998	0.99999990	0.99999961	0.99999873	0.99999627
24						0.99999999	0.99999997	0.99999989	0.99999963	0.99999883
25						1.00000000	0.99999999	0.99999997	0.99999989	0.99999964
26							1.00000000	0.99999999	0.99999997	0.99999990
27								1.00000000	0.99999999	0.99999997
28									1.00000000	0.99999999
29										1.00000000

x	λ=9	10	11	12	13	14	15	20	25	30
0	0.00012341	0.00004540	0.00001670	0.00000614	0.00000226	0.00000083	0.00000031	0.00000000	0.00000000	0.00000000
1	0.00123410	0.00049940	0.00020042	0.00007987	0.00003164	0.00001247	0.00000489	0.00000004	0.00000000	0.00000000
2	0.00623220	0.00276940	0.00121087	0.00052226	0.00022264	0.00009396	0.00003931	0.00000046	0.00000000	0.00000000
3	0.02122649	0.01033605	0.00491587	0.00229179	0.00105030	0.00047425	0.00021138	0.00000320	0.00000004	0.00000000
4	0.05496364	0.02925269	0.01510460	0.00760039	0.00374019	0.00180525	0.00085664	0.00001694	0.00000027	0.00000000
5	0.11569052	0.06708596	0.03751981	0.02034103	0.01073389	0.00553205	0.00279243	0.00007191	0.00000140	0.00000002
6	0.20678084	0.13014140	0.07861437	0.04582231	0.02588692	0.01422792	0.00763190	0.00025512	0.00000611	0.00000012
7	0.32389696	0.22022060	0.14319153	0.08950450	0.05402825	0.03161966	0.01800219	0.00077859	0.00002292	0.00000052
8	0.45565260	0.33281970	0.23198513	0.15502780	0.09975791	0.06205520	0.03744649	0.00208726	0.00007548	0.00000205
9	0.58740824	0.45792970	0.34051064	0.24239220	0.16581190	0.10939940	0.06985366	0.00499541	0.00022148	0.00000712
10	0.70598832	0.58303980	0.45988870	0.34722940	0.25168200	0.17568120	0.11846440	0.01081172	0.00058646	0.00002235
11	0.80300838	0.69677610	0.57926676	0.46159730	0.35316490	0.26003990	0.18475180	0.02138682	0.00141597	0.00006388
12	0.87577343	0.79155650	0.68869665	0.57596520	0.46310470	0.35845840	0.26761100	0.03901199	0.00314412	0.00016770
13	0.92614923	0.86446440	0.78129117	0.68153560	0.57304460	0.46444760	0.36321780	0.06612764	0.00646748	0.00040728
14	0.95853367	0.91654150	0.85404401	0.77202450	0.67513150	0.57043670	0.46565370	0.10486430	0.01240206	0.00092068
15	0.97796434	0.95125960	0.90739609	0.84441570	0.76360690	0.66935990	0.56808960	0.15651310	0.02229302	0.00194748
16	0.98889409	0.97295840	0.94407565	0.89870900	0.83549310	0.75591770	0.66412320	0.22107420	0.03774765	0.00387273
17	0.99468043	0.98572240	0.96780948	0.93703370	0.89046500	0.82720060	0.74885880	0.29702840	0.06047504	0.00727022
18	0.99757360	0.99281350	0.98231349	0.96258350	0.93016690	0.88264290	0.81947170	0.38142190	0.09204086	0.01293270
19	0.99894405	0.99654570	0.99071054	0.97872020	0.95733130	0.92349510	0.87521880	0.47025730	0.13357480	0.02187347
20	0.99956075	0.99841170	0.99532892	0.98840230	0.97498820	0.95209160	0.91702910	0.55909260	0.18549230	0.03528462
21	0.99982505	0.99930030	0.99774808	0.99393490	0.98591860	0.97115590	0.94689360	0.64369760	0.24729880	0.05444340
22	0.99993317	0.99970430	0.99895765	0.99695260	0.99237750	0.98328780	0.96725580	0.72061130	0.31753350	0.08056902
23	0.99997548	0.99987990	0.99953614	0.99852710	0.99602820	0.99067240	0.98053540	0.78749280	0.39387550	0.11464590
24	0.99999135	0.99995310	0.99980129	0.99931440	0.99800570	0.99498010	0.98883520	0.84322740	0.47339850	0.15724200
25	0.99999706	0.99998230	0.99991795	0.99969220	0.99903400	0.99739240	0.99381510	0.88781500	0.55292140	0.20835740
26	0.99999904	0.99999360	0.99996731	0.99986670	0.99954810	0.99869130	0.99668810	0.92211320	0.62938580	0.26733660
27	0.99999969	0.99999770	0.99998742	0.99994420	0.99979570	0.99936490	0.99828420	0.94751930	0.70018610	0.33286910
28	0.99999991	0.99999920	0.99999532	0.99997740	0.99991060	0.99970160	0.99913930	0.96566650	0.76340070	0.40308250
29	0.99999997	0.99999970	0.99999831	0.99999110	0.99996210	0.99986420	0.99958160	0.97818180	0.81789610	0.47571700
30	0.99999999	0.99999990	0.99999941	0.99999660	0.99998440	0.99994010	0.99980270	0.98652530	0.86330890	0.54835150
31	1.00000000	1.00000000	0.99999980	0.99999880	0.99999380	0.99997430	0.99990970	0.99190820	0.89993210	0.61864300