

Mathematik > Wahrscheinlichkeitstabeln > Poissonverteilung

Wahrscheinlichkeitstafel: Poissonverteilung P(7) bis P(8)

Parameter $\lambda = 7, 7.1, 7.2, 7.25, 7.3, 7.4, 7.5, 7.6, 7.7, 7.75, 7.8, 7.9, 8$ als erwartete Ereignishäufigkeit, Zufallsvariable X als bestimmte Anzahl k des Auftretens eines Ereignisses E mit $p(X=k)$, $p(X \leq k)$ (kumuliert), Erwartungswert μ , Standardabweichung σ

P(7)		
k =	p(X=k) =	p(X≤k) =
0	0.00091188	0.00091188
1	0.00638317	0.00729506
2	0.02234111	0.02963616
3	0.05212925	0.08176542
4	0.09122619	0.17299161
5	0.12771667	0.30070828
6	0.14900278	0.44971106
7	0.14900278	0.59871384
8	0.13037743	0.72909127
9	0.10140467	0.83049594
10	0.07098327	0.90147921
11	0.04517117	0.94665038
12	0.02634985	0.97300023
13	0.01418838	0.98718861
14	0.00709419	0.9942828
15	0.00331062	0.99759342
16	0.0014484	0.99904182
17	0.0005964	0.99963822
18	0.00023193	0.99987015
19	0.00008545	0.9999556
20	0.00002991	0.9999855
21	0.00000997	0.99999547
22	0.00000317	0.99999865
23	9.7e-7	0.99999961
24	2.8e-7	0.99999989
25	8e-8	0.99999997
26	2e-8	0.99999999
27	1e-8	1
28	0	1
...
P(7)		
$\mu = 7$		
$\sigma = 2.646$		

P(7.1)		
k =	p(X=k) =	p(X≤k) =
0	0.0008251	0.0008251
1	0.00585824	0.00668335
2	0.02079677	0.02748012
3	0.04921902	0.07669914
4	0.08736376	0.1640629
5	0.12405654	0.28811945
6	0.14680024	0.43491969
7	0.14889739	0.58381708
8	0.13214643	0.71596351
9	0.10424885	0.82021237
10	0.07401669	0.89422905
11	0.04777441	0.94200346
12	0.02826652	0.97026998
13	0.01543787	0.98570785
14	0.00782921	0.99353706
15	0.00370582	0.99724288
16	0.00164446	0.99888734
17	0.0006868	0.99957414
18	0.00027091	0.99984505
19	0.00010123	0.99994628
20	0.00003594	0.99998222
21	0.00001215	0.99999437
22	0.00000392	0.99999829
23	0.00000121	0.9999995
24	3.6e-7	0.99999986
25	1e-7	0.99999996
26	3e-8	0.99999999
27	1e-8	1
28	0	1
...
P(7.1)		
$\mu = 7.1$		
$\sigma = 2.665$		

P(7.2)		
k =	p(X=k) =	p(X≤k) =
0	0.00074659	0.00074659
1	0.00537542	0.006122
2	0.0193515	0.02547351
3	0.04644361	0.07191712
4	0.0835985	0.15551562
5	0.12038184	0.27589745
6	0.1444582	0.42035566
7	0.14858558	0.56894124

8	0.13372702	0.70266826
9	0.10698162	0.80964988
10	0.07702677	0.88667665
11	0.05041752	0.93709417
12	0.03025051	0.96734468
13	0.01675413	0.98409881
14	0.00861641	0.99271522
15	0.00413588	0.99685109
16	0.00186114	0.99871224
17	0.00078825	0.99950049
18	0.0003153	0.99981579
19	0.00011948	0.99993527
20	0.00004301	0.99997828
21	0.00001475	0.99999303
22	0.00000483	0.99999786
23	0.00000151	0.99999937
24	4.5e-7	0.99999982
25	1.3e-7	0.99999995
26	4e-8	0.99999999
27	1e-8	1
28	0	1
...
P(7.2)		
$\mu = 7.2$		
$\sigma = 2.683$		

P(7.25)		
k =	p(X=k) =	p(X≤k) =
0	0.00071017	0.00071017
1	0.00514876	0.00585894
2	0.01866427	0.02452321
3	0.04510532	0.06962853
4	0.08175339	0.15138192
5	0.11854242	0.26992435
6	0.14323876	0.4131631
7	0.14835443	0.56151753
8	0.1344462	0.69596373
9	0.10830388	0.80426762
10	0.07852032	0.88278793
11	0.05175203	0.93453996
12	0.03126685	0.96580681
13	0.01743728	0.98324409
14	0.00903002	0.99227411
15	0.00436451	0.99663862
16	0.00197767	0.99861629
17	0.00084342	0.99945971

18	0.00033971	0.99979942
19	0.00012963	0.99992904
20	0.00004699	0.99997603
21	0.00001622	0.99999226
22	0.00000535	0.9999976
23	0.00000169	0.99999929
24	5.1e-7	0.9999998
25	1.5e-7	0.99999994
26	4e-8	0.99999999
27	1e-8	1
28	0	1
...
P(7.25)		
$\mu = 7.25$		
$\sigma = 2.693$		

P(7.3)		
k =	p(X=k) =	p(X≤k) =
0	0.00067554	0.00067554
1	0.00493143	0.00560697
2	0.01799973	0.0236067
3	0.04379934	0.06740605
4	0.0799338	0.14733985
5	0.11670335	0.2640432
6	0.14198908	0.40603229
7	0.14807433	0.55410661
8	0.13511782	0.68922443
9	0.10959557	0.79882
10	0.08000476	0.87882477
11	0.05309407	0.93191884
12	0.03229889	0.96421773
13	0.01813707	0.9823548
14	0.00945719	0.99181199
15	0.0046025	0.99641449
16	0.00209989	0.99851438
17	0.00090172	0.99941609
18	0.0003657	0.99978179
19	0.0001405	0.99992229
20	0.00005128	0.99997358
21	0.00001783	0.99999141
22	0.00000592	0.99999732
23	0.00000188	0.9999992
24	5.7e-7	0.99999977
25	1.7e-7	0.99999994
26	5e-8	0.99999998
27	1e-8	1

28	0	1
...
P(7.3)		
$\mu = 7.3$		
$\sigma = 2.702$		

P(7.4)		
k =	p(X=k) =	p(X≤k) =
0	0.00061125	0.00061125
1	0.00452327	0.00513452
2	0.0167361	0.02187062
3	0.04128238	0.06315301
4	0.07637241	0.13952541
5	0.11303116	0.25255657
6	0.1394051	0.39196167
7	0.1473711	0.53933277
8	0.13631827	0.67565104
9	0.11208391	0.78773496
10	0.08294209	0.87067705
11	0.05579741	0.92647446
12	0.0344084	0.96088286
13	0.01958632	0.98046918
14	0.01035277	0.99082195
15	0.00510737	0.99592932
16	0.00236216	0.99829148
17	0.00102823	0.99931971
18	0.00042272	0.99974243
19	0.00016464	0.99990706
20	0.00006092	0.99996798
21	0.00002147	0.99998945
22	0.00000722	0.99999667
23	0.00000232	0.99999899
24	7.2e-7	0.99999971
25	2.1e-7	0.99999992
26	6e-8	0.99999998
27	2e-8	0.99999999
28	0	1
...
P(7.4)		
$\mu = 7.4$		
$\sigma = 2.72$		

P(7.5)		
k =	p(X=k) =	p(X≤k) =
0	0.00055308	0.00055308
1	0.00414813	0.00470122
2	0.0155555	0.02025672
3	0.03888874	0.05914546
4	0.0729164	0.13206186
5	0.10937459	0.24143645
6	0.13671824	0.37815469
7	0.14648383	0.52463853
8	0.13732859	0.66196712
9	0.11444049	0.77640761
10	0.08583037	0.86223798
11	0.05852071	0.92075869
12	0.03657544	0.95733413
13	0.02110122	0.97843535
14	0.01130422	0.98973957
15	0.00565211	0.99539168
16	0.00264943	0.99804111
17	0.00116886	0.99920998
18	0.00048703	0.999697
19	0.00019225	0.99988925
20	0.00007209	0.99996134
21	0.00002575	0.99998709
22	0.00000878	0.99999587
23	0.00000286	0.99999873
24	8.9e-7	0.99999963
25	2.7e-7	0.99999989
26	8e-8	0.99999997
27	2e-8	0.99999999
28	1e-8	1
29	0	1
...
P(7.5)		
$\mu = 7.5$		
$\sigma = 2.739$		

P(7.6)		
k =	p(X=k) =	p(X≤k) =
0	0.00050045	0.00050045
1	0.00380343	0.00430388
2	0.01445304	0.01875692
3	0.03661436	0.05537128
4	0.06956729	0.12493857
5	0.10574228	0.23068084
6	0.13394022	0.36462106

7	0.14542081	0.51004187
8	0.13814977	0.64819163
9	0.1166598	0.76485143
10	0.08866145	0.85351288
11	0.061257	0.91476988
12	0.0387961	0.95356599
13	0.0226808	0.97624678
14	0.01231243	0.98855922
15	0.0062383	0.99479751
16	0.00296319	0.99776071
17	0.00132472	0.99908543
18	0.00055933	0.99964475
19	0.00022373	0.99986849
20	0.00008502	0.9999535
21	0.00003077	0.99998427
22	0.00001063	0.9999949
23	0.00000351	0.99999841
24	0.00000111	0.99999953
25	3.4e-7	0.99999986
26	1e-7	0.99999996
27	3e-8	0.99999999
28	1e-8	1
29	0	1
...
P(7.6)		
$\mu = 7.6$		
$\sigma = 2.757$		

P(7.7)		
k =	p(X=k) =	p(X≤k) =
0	0.00045283	0.00045283
1	0.00348677	0.0039396
2	0.01342406	0.01736366
3	0.03445509	0.05181875
4	0.06632605	0.1181448
5	0.10214212	0.22028692
6	0.13108239	0.35136931
7	0.14419063	0.49555994
8	0.13878348	0.63434342
9	0.11873698	0.75308039
10	0.09142747	0.84450786
11	0.06399923	0.90850709
12	0.04106617	0.94957326
13	0.02432381	0.97389707
14	0.0133781	0.98727517
15	0.00686742	0.99414259

16	0.00330495	0.99744754
17	0.00149695	0.99894449
18	0.00064036	0.99958485
19	0.00025951	0.99984436
20	0.00009991	0.99994427
21	0.00003663	0.99998091
22	0.00001282	0.99999373
23	0.00000429	0.99999802
24	0.00000138	0.9999994
25	4.2e-7	0.99999983
26	1.3e-7	0.99999995
27	4e-8	0.99999999
28	1e-8	1
29	0	1
...
P(7.7)		
$\mu = 7.7$		
$\sigma = 2.775$		

P(7.75)		
k =	p(X=k) =	p(X≤k) =
0	0.00043074	0.00043074
1	0.00333825	0.003769
2	0.01293574	0.01670473
3	0.03341732	0.05012205
4	0.06474606	0.11486811
5	0.10035639	0.2152245
6	0.129627	0.34485151
7	0.14351561	0.48836712
8	0.13903075	0.62739787
9	0.11972092	0.74711879
10	0.09278372	0.83990251
11	0.06537034	0.90527285
12	0.04221835	0.9474912
13	0.02516863	0.97265983
14	0.01393263	0.98659246
15	0.00719853	0.99379099
16	0.00348679	0.99727778
17	0.00158956	0.99886734
18	0.0006844	0.99955174
19	0.00027916	0.9998309
20	0.00010818	0.99993907
21	0.00003992	0.999979
22	0.00001406	0.99999306
23	0.00000474	0.9999978
24	0.00000153	0.99999933

25	4.7e-7	0.9999998
26	1.4e-7	0.99999994
27	4e-8	0.99999998
28	1e-8	1
29	0	1
...
P(7.75)		
$\mu = 7.75$		
$\sigma = 2.784$		

P(7.8)		
k =	p(X=k) =	p(X≤k) =
0	0.00040973	0.00040973
1	0.00319593	0.00360567
2	0.01246414	0.01606981
3	0.03240676	0.04847656
4	0.06319318	0.11166974
5	0.09858136	0.21025111
6	0.12815577	0.33840687
7	0.14280214	0.48120902
8	0.13923209	0.62044111
9	0.12066781	0.74110892
10	0.09412089	0.83522981
11	0.06674027	0.90197008
12	0.04338117	0.94535125
13	0.0260287	0.97137996
14	0.01450171	0.98588166
15	0.00754089	0.99342255
16	0.00367618	0.99709873
17	0.00168672	0.99878545
18	0.00073091	0.99951637
19	0.00030006	0.99981642
20	0.00011702	0.99993345
21	0.00004347	0.99997691
22	0.00001541	0.99999232
23	0.00000523	0.99999755
24	0.0000017	0.99999925
25	5.3e-7	0.99999978
26	1.6e-7	0.99999994
27	5e-8	0.99999998
28	1e-8	1
29	0	1
...
P(7.8)		
$\mu = 7.8$		
$\sigma = 2.793$		

P(7.9)		
k =	p(X=k) =	p(X≤k) =
0	0.00037074	0.00037074
1	0.00292887	0.00329962
2	0.01156905	0.01486867
3	0.03046517	0.04533384
4	0.06016871	0.10550255
5	0.09506657	0.20056912
6	0.12517098	0.3257401
7	0.14126439	0.46700448
8	0.13949858	0.60650307
9	0.12244876	0.72895183
10	0.09673452	0.82568634
11	0.06947297	0.89515932
12	0.04573637	0.94089569
13	0.02779364	0.96868933
14	0.01568356	0.98437289
15	0.00826001	0.99263289
16	0.00407838	0.99671127
17	0.00189525	0.99860652
18	0.0008318	0.99943832
19	0.00034585	0.99978417
20	0.00013661	0.99992079
21	0.00005139	0.99997218
22	0.00001845	0.99999063
23	0.00000634	0.99999697
24	0.00000209	0.99999906
25	6.6e-7	0.99999972
26	2e-7	0.99999992
27	6e-8	0.99999998
28	2e-8	0.99999999
29	0	1
...
P(7.9)		
$\mu = 7.9$		
$\sigma = 2.811$		

P(8)		
k =	p(X=k) =	p(X≤k) =
0	0.00033546	0.00033546
1	0.0026837	0.00301916
2	0.0107348	0.01375397
3	0.02862614	0.04238011
4	0.05725229	0.0996324
5	0.09160366	0.19123606
6	0.12213822	0.31337428

7	0.13958653	0.45296081
8	0.13958653	0.59254734
9	0.12407692	0.71662426
10	0.09926153	0.81588579
11	0.07219021	0.888076
12	0.0481268	0.9362028
13	0.02961649	0.9658193
14	0.01692371	0.98274301
15	0.00902598	0.99176899
16	0.00451299	0.99628198
17	0.00212376	0.99840574
18	0.00094389	0.99934963
19	0.00039743	0.99974706
20	0.00015897	0.99990603
21	0.00006056	0.99996659
22	0.00002202	0.99998861
23	0.00000766	0.99999627
24	0.00000255	0.99999883
25	8.2e-7	0.99999964
26	2.5e-7	0.9999999
27	7e-8	0.99999997
28	2e-8	0.99999999
29	1e-8	1
30	0	1
...
P(8)		
$\mu = 8$		
$\sigma = 2.828$		