

Mathematik > Wahrscheinlichkeitstabeln > Poissonverteilung

Wahrscheinlichkeitstafel: Poissonverteilung P(6) bis P(7)

Parameter $\lambda = 6, 6.1, 6.2, 6.25, 6.3, 6.4, 6.5, 6.6, 6.7, 6.75, 6.8, 6.9, 7$ 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(6)		
k =	p(X=k) =	p(X≤k) =
0	0.00247875	0.00247875
1	0.01487251	0.01735127
2	0.04461754	0.0619688
3	0.08923508	0.15120388
4	0.13385262	0.2850565
5	0.16062314	0.44567964
6	0.16062314	0.60630278
7	0.13767698	0.74397976
8	0.10325773	0.84723749
9	0.06883849	0.91607598
10	0.04130309	0.95737908
11	0.02252896	0.97990804
12	0.01126448	0.99117252
13	0.00519899	0.99637151
14	0.00222814	0.99859965
15	0.00089126	0.9994909
16	0.00033422	0.99982512
17	0.00011796	0.99994308
18	0.00003932	0.9999824
19	0.00001242	0.99999482
20	0.00000373	0.99999854
21	0.00000106	0.99999961
22	2.9e-7	0.9999999
23	8e-8	0.99999998
24	2e-8	0.99999999
25	0	1
...
P(6)		
$\mu = 6$		
$\sigma = 2.449$		

P(6.1)		
k =	p(X=k) =	p(X≤k) =
0	0.00224287	0.00224287
1	0.01368149	0.01592436
2	0.04172855	0.05765291
3	0.08484806	0.14250097
4	0.12939329	0.27189427

5	0.15785981	0.42975408
6	0.16049081	0.59024489
7	0.13985628	0.73010117
8	0.10664041	0.83674158
9	0.0722785	0.90902009
10	0.04408989	0.95310997
11	0.02444985	0.97755982
12	0.01242867	0.98998849
13	0.00583192	0.9958204
14	0.00254105	0.99836145
15	0.00103336	0.99939481
16	0.00039397	0.99978878
17	0.00014137	0.99993015
18	0.00004791	0.99997805
19	0.00001538	0.99999343
20	0.00000469	0.99999813
21	0.00000136	0.99999949
22	3.8e-7	0.99999987
23	1e-7	0.99999997
24	3e-8	0.99999999
25	1e-8	1
26	0	1
...
P(6.1)		
$\mu = 6.1$		
$\sigma = 2.47$		

P(6.2)		
k =	p(X=k) =	p(X≤k) =
0	0.00202943	0.00202943
1	0.01258247	0.0146119
2	0.03900566	0.05361756
3	0.08061169	0.13422925
4	0.12494812	0.25917737
5	0.15493567	0.41411304
6	0.16010019	0.57421323
7	0.14180303	0.71601626
8	0.10989735	0.8259136
9	0.07570706	0.90162066
10	0.04693838	0.94855904
11	0.02645618	0.97501522
12	0.01366902	0.98868424
13	0.00651907	0.99520332
14	0.00288702	0.99809033
15	0.0011933	0.99928364
16	0.0004624	0.99974604

17	0.00016864	0.99991468
18	0.00005809	0.99997277
19	0.00001895	0.99999172
20	0.00000588	0.9999976
21	0.00000173	0.99999933
22	4.9e-7	0.99999982
23	1.3e-7	0.99999995
24	3e-8	0.99999999
25	1e-8	1
26	0	1
...
P(6.2)		
$\mu = 6.2$		
$\sigma = 2.49$		

P(6.25)		
k =	p(X=k) =	p(X≤k) =
0	0.00193045	0.00193045
1	0.01206534	0.01399579
2	0.03770418	0.05169997
3	0.07855038	0.13025035
4	0.12273497	0.25298532
5	0.15341871	0.40640403
6	0.15981116	0.56621519
7	0.14268853	0.70890372
8	0.11147542	0.82037914
9	0.07741348	0.89779262
10	0.04838343	0.94617605
11	0.02749058	0.97366664
12	0.01431801	0.98798465
13	0.00688366	0.99486831
14	0.00307306	0.99794137
15	0.00128044	0.99922181
16	0.00050017	0.99972199
17	0.00018389	0.99990587
18	0.00006385	0.99996972
19	0.000021	0.99999073
20	0.00000656	0.99999729
21	0.00000195	0.99999924
22	5.5e-7	0.9999998
23	1.5e-7	0.99999995
24	4e-8	0.99999999
25	1e-8	1
26	0	1
...

P(6.25)
$\mu = 6.25$
$\sigma = 2.5$

P(6.3)		
k =	p(X=k) =	p(X≤k) =
0	0.0018363	0.0018363
1	0.01156872	0.01340502
2	0.03644147	0.04984649
3	0.07652708	0.12637358
4	0.12053016	0.24690373
5	0.151868	0.39877173
6	0.1594614	0.55823313
7	0.14351526	0.70174838
8	0.11301827	0.81476665
9	0.07911279	0.89387943
10	0.04984105	0.94372049
11	0.02854533	0.97226582
12	0.0149863	0.98725212
13	0.00726259	0.99451471
14	0.00326817	0.99778288
15	0.00137263	0.99915551
16	0.00054047	0.99969598
17	0.00020029	0.99989627
18	0.0000701	0.99996638
19	0.00002324	0.99998962
20	0.00000732	0.99999694
21	0.0000022	0.99999914
22	6.3e-7	0.99999977
23	1.7e-7	0.99999994
24	5e-8	0.99999999
25	1e-8	1
26	0	1
...
P(6.3)		
$\mu = 6.3$		
$\sigma = 2.51$		

P(6.4)		
k =	p(X=k) =	p(X≤k) =
0	0.00166156	0.00166156
1	0.01063397	0.01229552
2	0.03402869	0.04632422
3	0.07259454	0.11891876
4	0.11615127	0.23507003

5	0.14867363	0.38374366
6	0.1585852	0.54232887
7	0.14499219	0.68732105
8	0.11599375	0.8033148
9	0.08248444	0.88579924
10	0.05279004	0.93858929
11	0.03071421	0.96930349
12	0.01638091	0.9856844
13	0.00806445	0.99374885
14	0.0036866	0.99743546
15	0.00157295	0.99900841
16	0.00062918	0.99963759
17	0.00023687	0.99987446
18	0.00008422	0.99995868
19	0.00002837	0.99998705
20	0.00000908	0.99999612
21	0.00000277	0.99999889
22	8e-7	0.9999997
23	2.2e-7	0.99999992
24	6e-8	0.99999998
25	2e-8	1
26	0	1
...
P(6.4)		
$\mu = 6.4$		
$\sigma = 2.53$		

P(6.5)		
k =	p(X=k) =	p(X≤k) =
0	0.00150344	0.00150344
1	0.00977235	0.01127579
2	0.03176015	0.04303595
3	0.06881366	0.11184961
4	0.11182221	0.22367182
5	0.14536887	0.36904068
6	0.15748294	0.52652362
7	0.14623416	0.67275778
8	0.11881525	0.79157303
9	0.08581102	0.87738405
10	0.05577716	0.93316121
11	0.03295923	0.96612044
12	0.01785292	0.98397336
13	0.00892646	0.99289982
14	0.00414443	0.99704424
15	0.00179592	0.99884016
16	0.00072959	0.99956975

17	0.00027896	0.99984872
18	0.00010074	0.99994945
19	0.00003446	0.99998391
20	0.0000112	0.99999511
21	0.00000347	0.99999858
22	0.00000102	0.99999961
23	2.9e-7	0.99999989
24	8e-8	0.99999997
25	2e-8	0.99999999
26	1e-8	1
27	0	1
...
P(6.5)		
$\mu = 6.5$		
$\sigma = 2.55$		

P(6.6)		
k =	p(X=k) =	p(X≤k) =
0	0.00136037	0.00136037
1	0.00897843	0.0103388
2	0.02962882	0.03996761
3	0.06518339	0.10515101
4	0.1075526	0.21270361
5	0.14196943	0.35467304
6	0.15616638	0.51083942
7	0.14724258	0.65808201
8	0.12147513	0.77955714
9	0.08908176	0.8686389
10	0.05879396	0.92743287
11	0.03527638	0.96270924
12	0.01940201	0.98211125
13	0.00985025	0.9919615
14	0.00464369	0.99660519
15	0.00204322	0.99864841
16	0.00084283	0.99949124
17	0.00032722	0.99981846
18	0.00011998	0.99993844
19	0.00004168	0.99998012
20	0.00001375	0.99999387
21	0.00000432	0.99999819
22	0.0000013	0.99999949
23	3.7e-7	0.99999986
24	1e-7	0.99999996
25	3e-8	0.99999999
26	1e-8	1

27	0	1
...
P(6.6)		
$\mu = 6.6$		
$\sigma = 2.569$		

P(6.7)		
k =	p(X=k) =	p(X≤k) =
0	0.00123091	0.00123091
1	0.00824711	0.00947802
2	0.02762782	0.03710584
3	0.06170213	0.09880797
4	0.10335106	0.20215903
5	0.13849042	0.34064945
6	0.15464764	0.49529709
7	0.14801988	0.64331697
8	0.12396665	0.76728362
9	0.09228628	0.8595699
10	0.06183181	0.92140172
11	0.03766119	0.95906291
12	0.0210275	0.98009041
13	0.01083725	0.99092766
14	0.0051864	0.99611406
15	0.00231659	0.99843065
16	0.00097007	0.99940072
17	0.00038232	0.99978304
18	0.00014231	0.99992535
19	0.00005018	0.99997554
20	0.00001681	0.99999235
21	0.00000536	0.99999771
22	0.00000163	0.99999934
23	4.8e-7	0.99999982
24	1.3e-7	0.99999995
25	4e-8	0.99999999
26	1e-8	1
27	0	1
...
P(6.7)		
$\mu = 6.7$		
$\sigma = 2.588$		

P(6.75)		
k =	p(X=k) =	p(X≤k) =
0	0.00117088	0.00117088
1	0.00790344	0.00907432
2	0.0266741	0.03574842

3	0.06001673	0.09576515
4	0.10127823	0.19704338
5	0.13672561	0.33376898
6	0.15381631	0.48758529
7	0.14832287	0.63590816
8	0.12514742	0.76105559
9	0.09386057	0.85491615
10	0.06335588	0.91827203
11	0.03887747	0.95714951
12	0.02186858	0.97901809
13	0.01135484	0.99037292
14	0.00547465	0.99584758
15	0.00246359	0.99831117
16	0.00103933	0.9993505
17	0.00041267	0.99976318
18	0.00015475	0.99991793
19	0.00005498	0.99997291
20	0.00001856	0.99999146
21	0.00000596	0.99999743
22	0.00000183	0.99999926
23	5.4e-7	0.99999979
24	1.5e-7	0.99999995
25	4e-8	0.99999999
26	1e-8	1
27	0	1
...
P(6.75)		
$\mu = 6.75$		
$\sigma = 2.598$		

P(6.8)		
k =	p(X=k) =	p(X≤k) =
0	0.00111378	0.00111378
1	0.00757367	0.00868745
2	0.02575048	0.03443793
3	0.05836776	0.09280569
4	0.09922519	0.19203087
5	0.13494626	0.32697713
6	0.15293909	0.47991622
7	0.1485694	0.62848562
8	0.12628399	0.75476961
9	0.09541457	0.85018419
10	0.06488191	0.91506609
11	0.04010882	0.95517491
12	0.02272833	0.97790324
13	0.01188866	0.9897919

14	0.00577449	0.9955664
15	0.00261777	0.99818417
16	0.00111255	0.99929672
17	0.00044502	0.99974174
18	0.00016812	0.99990986
19	0.00006017	0.99997003
20	0.00002046	0.99999049
21	0.00000662	0.99999711
22	0.00000205	0.99999916
23	6.1e-7	0.99999977
24	1.7e-7	0.99999994
25	5e-8	0.99999998
26	1e-8	1
27	0	1
...
P(6.8)		
$\mu = 6.8$		
$\sigma = 2.608$		

P(6.9)		
k =	p(X=k) =	p(X≤k) =
0	0.00100779	0.00100779
1	0.00695372	0.0079615
2	0.02399033	0.03195184
3	0.05517776	0.0871296
4	0.09518164	0.18231124
5	0.13135067	0.31366191
6	0.15105327	0.46471518
7	0.14889536	0.61361054
8	0.12842225	0.74203279
9	0.09845706	0.84048985
10	0.06793537	0.90842522
11	0.04261401	0.95103923
12	0.02450305	0.97554228
13	0.01300547	0.98854775
14	0.00640984	0.99495758
15	0.00294853	0.99790611
16	0.00127155	0.99917766
17	0.0005161	0.99969376
18	0.00019784	0.9998916
19	0.00007185	0.99996345
20	0.00002479	0.99998823
21	0.00000814	0.99999638
22	0.00000255	0.99999893
23	7.7e-7	0.9999997
24	2.2e-7	0.99999992

25	6e-8	0.99999998
26	2e-8	0.99999999
27	0	1
...
P(6.9)		
$\mu = 6.9$		
$\sigma = 2.627$		

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)		
$\mu = 7$		
$\sigma = 2.646$		