**Астаппев Олег ИНФ-12-1**

Nn = 1, m = 1, T1 = 2, T2 = 6, λ = 10

Массив :

[0.4056, 0.8726, 0.0974, 0.8124, 0.1667, 0.6559, 0.8474, 0.2232, 0.314, 0.863, 0.5282, 0.1706, 0.9556, 0.3913, 0.983, 0.6629, 0.661, 0.3918, 0.7079, 0.5842, 0.5262, 0.6823, 0.1976, 0.5168, 0.9825, 0.612, 0.2257, 0.8119, 0.4437, 0.0299, 0.0608, 0.1214, 0.0607, 0.1951, 0.6164, 0.5863, 0.1419, 0.2253, 0.8738, 0.0743, 0.0005, 0.9431, 0.7083, 0.545, 0.949, 0.8803, 0.6127, 0.302, 0.5372, 0.6356, 0.7209, 0.9313, 0.6572, 0.9242, 0.4287, 0.535, 0.9626, 0.0307, 0.5408, 0.3624, 0.6596, 0.6562, 0.4461, 0.7618, 0.684, 0.3281, 0.9036, 0.6459, 0.5868, 0.3513, 0.0828, 0.275, 0.2654, 0.3811, 0.2574, 0.7494, 0.1112, 0.1619, 0.0732, 0.3996]

Массив :

[0.09023878267051637, 0.013627801829262778, 0.23289290683336478, 0.020776244927590743, 0.1791559489225389, 0.04217469406824472, 0.016558244078967815, 0.1499687048474981, 0.11583622930738838, 0.014734058789870913, 0.06382802791191053, 0.17684336439245585, 0.0045415863530482575, 0.09382807497657704, 0.0017146158834970516, 0.04111311297347911, 0.04140014391304508, 0.09370037734716968, 0.03454524382019935, 0.053751188902849634, 0.06420739103759447, 0.038228583516075915, 0.16215104936683697, 0.06600993265137449, 0.001765493523872071, 0.0491022996469811, 0.14885485951586472, 0.020837809911373635, 0.08126066205972733, 0.3509896798585497, 0.2800165490010016, 0.21086644003567395, 0.28018115809166844, 0.16342430313530718, 0.04838591755361765, 0.05339236750119676, 0.19526326948161402, 0.14903224315439384, 0.013490376246480152, 0.25996443272584235, 0.7600902459542083, 0.005858295743229787, 0.03448875462225601, 0.06069694843188929, 0.005234648037220924, 0.012749252051527667, 0.04898798592505282, 0.11973282616072674, 0.06213848143330545, 0.045318584431957604, 0.03272548475716042, 0.0071173819454524905, 0.0419766892819024, 0.007882678054597102, 0.08469979053782056, 0.06254885320861304, 0.0038117322113128045, 0.3483492624388986, 0.061470575425338285, 0.1015006704813313, 0.04161216882966933, 0.04212896584551358, 0.08072121368479179, 0.027207122493763336, 0.037979736135958654, 0.11144368390150812, 0.01013684943882889, 0.043711058594371, 0.05330712327133105, 0.10461147197103558, 0.24913272175909232, 0.12909841813155656, 0.13265171570840298, 0.09646934711023225, 0.13571239838201107, 0.02884823926225501, 0.21964248971656553, 0.18207764182985478, 0.2614559858014871, 0.09172912322077387]

Массив :

[2.090238782670516, 2.1038665844997793, 2.3367594913331438, 2.3575357362607345, 2.5366916851832735, 2.5788663792515183, 2.595424623330486, 2.7453933281779843, 2.8612295574853723, 2.8759636162752433, 2.939791644187154, 3.1166350085796095, 3.121176594932658, 3.215004669909235, 3.216719285792732, 3.2578323987662112, 3.299232542679256, 3.3929329200264258, 3.4274781638466254, 3.481229352749475, 3.5454367437870697, 3.5836653273031454, 3.7458163766699824, 3.811826309321357, 3.813591802845229, 3.86269410249221, 4.011548962008074, 4.032386771919448, 4.113647433979176, 4.464637113837726, 4.7446536628387275, 4.955520102874401, 5.23570126096607, 5.399125564101377, 5.4475114816549945, 5.500903849156192, 5.696167118637805, 5.845199361792199, 5.858689738038679]

Таблица 1.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| № інтервалу | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| x(τ) | 2 | 0 | 2 | 3 | 1 | 3 | 1 | 4 | 3 | 3 | 1 | 3 | 2 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 2 |

Таблица 2.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| xk(τ ) | 0 | 1 | 2 | 3 | 4 |
| nk | 5 | 9 | 4 | 6 | 1 |

∑ nk = 39,  , 

|  |  |
| --- | --- |
| Вероятности для λ (λ = 10) | Вероятности для  ( = 9.75) |
| 1. P0( t ) = 4.248354255291586e-18  2. P1( t ) = 1.0620885638228964e-17  3. P4( t ) = 6.914639087388649e-18  4. P≥5 ( t ) = 1  5. P<3 ( t ) = 2.814534694130675e-17  6. P≤ 7 ( t ) = 5.153575999703871e-17  7. P[ 0,1 < zk < 0,5 ] = 0.36114149417235686 | 1. P0( t ) = 1.1548224173015808e-17  2. P1( t ) = 2.8148796421726033e-17  3. P4( t ) = 1.6985661366173975e-17  4. P≥5 ( t ) = 0.9999999999999999  5. P<3 ( t ) = 7.400336623372043e-17  6. P≤ 7 ( t ) = 1.3167877843829066e-16  7. P[ 0,1 < zk < 0,5 ] = 0.36955725934429695 |

Выводы:

На лабораторной работе мы изучали свойства простого потока, мы получили случайные промежутки для нашей очереди, изучили ее характеристики. Посчитали вероятности отсутствия требований и получения некоторых требований за промежуток t, для нашей очереди.