**2.Vehicle Generations in Excel**

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* POISSON

Define the mean = 3,

then the probability-distribution (Keep three decimals) is

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 0.050 | 0.199 | 0.423 | 0.647 | 0.815 | 0.916 | 0.966 | 0.988 | 0.996 | 0.999 | 1.000 |

I generate 1000 random numbers between 0 and 1, and choose the number what they belong to. Now results are as follows:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| num | 2 | 3 | 4 | 1 | 5 | 6 | 0 | 7 | 9 | 8 |
| frequency | 0.245 | 0.210 | 0.178 | 0.133 | 0.092 | 0.056 | 0.051 | 0.020 | 0.008 | 0.007 |

High fit

* NED

Define the μ = 0.3

then the probability-distribution (Keep three decimals) is

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 0.000 | 0.259 | 0.451 | 0.593 | 0.699 | 0.777 | 0.835 | 0.878 | 0.909 | 0.933 | 0.950 |

I generate 1000 random numbers between 0 and 1, and choose the number what they belong to. Now results are as follows:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| num | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| frequency | 0 | 256 | 204 | 132 | 96 | 79 | 65 | 45 | 23 | 23 |