**Statistics Library Demo – Project 2**

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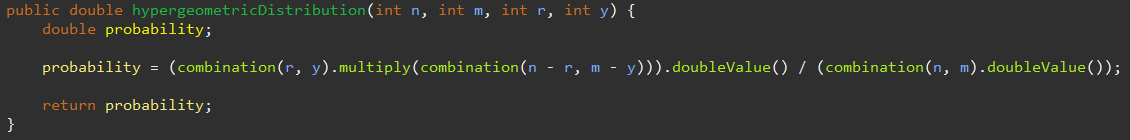
Hypergeometric Distribution

Probability

* Given the number of successes in sample y = 2, population N = 10, sample size n = 5, and number of successes in the population r = 4

Output:

Hypergeometric Distribution Method:

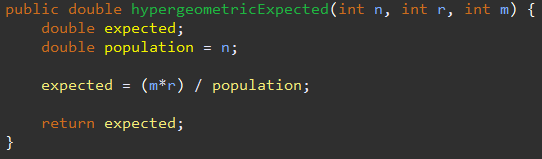


Expected Value

* Given the population N = 10, sample size n = 5, and number of successes in the population r = 4

Output:

Expected Value Method:

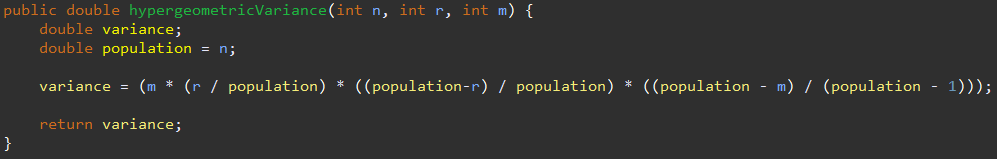


Variance

* Given the population N = 10, sample size n = 5, and number of successes in the population r = 4

Output:

Variance Method:

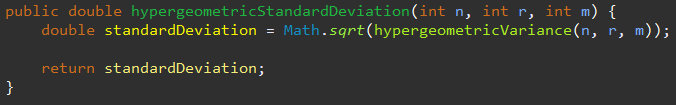


Standard Deviation

* Given the population N = 10, sample size n = 5, and number of successes in the population r = 4

Output:

Standard Deviation Method:



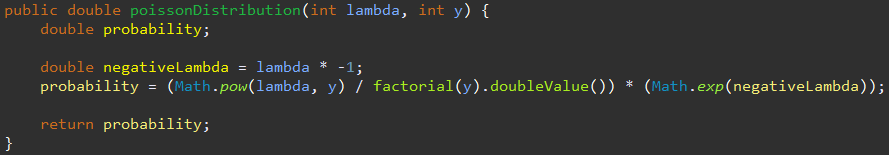
Poisson Distribution

Probability

* Given the average number of events lambda = 2 and the number of occurrences of an event y = 4

Output: 

Poisson Distribution Method:



Expected Value and Variance

* Given the average number of events lambda = 2

Output:

Expected Value and Variance Method:



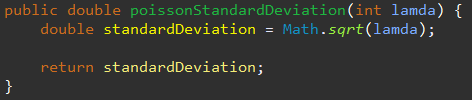
Standard Deviation

* Given the average number of events lambda = 2



Output:

Standard Deviation Method:



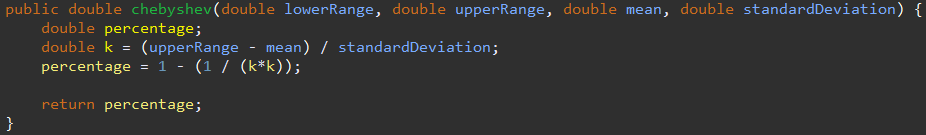
Chebyshev’s Theorem

Probability Given Standard Deviation

* Given a lower range of 16, upper range of 24, mean = 20, and standard deviation = 2

Output:

Chebyshev Method:

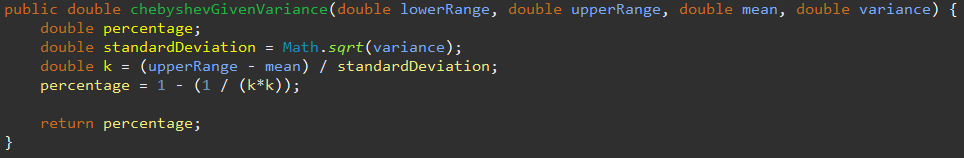


Probability Given Variance

* Given a lower range of 16, upper range of 24, mean = 20, and variance = 4

Output:

Chebyshev Given Variance Method:



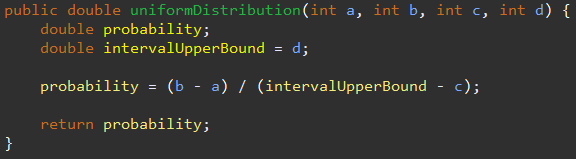
Uniform Distribution

Probability

* Given the desired interval has an upper bound b = 15 and lower bound a = 5 while the overall interval has an upper bound d = 20 and lower bound c = 0

Output:

Uniform Distribution Method:

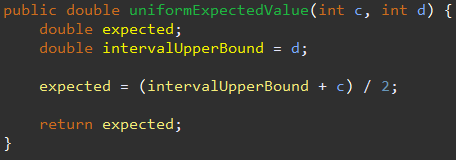


Expected Value

* Given an overall interval with an upper bound d = 20 and lower bound c = 1

Output:

Expected Value Method:



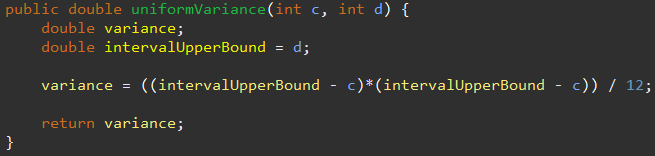
Variance

* Given an overall interval with an upper bound d = 20 and lower bound c = 1



Output:

Variance Method:



Standard Deviation

* Given an overall interval with an upper bound d = 20 and lower bound c = 1



Output:

Standard Deviation Method:

