

HYPERGEOMETRIC DISTRIBUTION (CAS)

In a bag there is 6 blue ball and 4 red balls (i.e total N=10 as population)

X: number of blue balls

Take 4 balls without replacement

Number of blue balls in the sample, x	0	1	2	3	4
Proportion of blue balls in the sample, $\hat{p}$	0	0.25	0.5	0.75	1
Probability	$\frac{1}{210}$	$\frac{24}{210}$	$\frac{90}{210}$	$\frac{80}{210}$	$\frac{15}{210}$

Interactive → Distribution → Discrete → hypergeoPDF

hypergeoPDF

x 1

n

M

N

specified trial

OK Cancel

hypergeoPDF

x 1

n 4

M

N

number of trials from population
(0 ≤ n integer)

OK Cancel

hypergeoPDF

x 1

n 4

M 6

N

number of successes in population
(0 ≤ M integer)

OK Cancel

hypergeoPDF

x 1

n 4

M 6

N 10

population size (n ≤ N, M ≤ N integer)

OK Cancel

Or Action → Distribution → Discrete → HypergeoPDF(x, n, M, N)

For example above $\Pr(X=1)$ would be HypergeoPDF(1,4,6,10)