(3)

$h(x=?) = \frac{{}_cC_x \times {}_{N-c}C_{n-x}}{{}_NC_n}$

a) $x = 0$

$N = 60$

$C = 20$

$n = 10$

$h(x=0) = \frac{{}_{20}C_0 \times {}_{40}C_{10}}{{}_{60}C_{10}} = 0.0112$

b)) $x = 1$

$h(x=1) = \frac{{}_{20}C_1 \times {}_{40}C_9}{{}_{60}C_{10}} = 0.0725$

c) $x = 2, 3, 4, 5, 6, 7, 8, 9, 10$

$h(x=2) = 0.1938$

$h(x=3) = 0.2819$

$h(x=4) = 0.2466$

$h(x=5) = 0.1353$

$h(x=6) = 0.0469$

$h(x=7) = 0.0101$

$h(x=8) = 0.0013$

$h(x=9) = 0.0000$

$h(x=10) = 0.0000 +$

0.9159

d) $N = 60$

$C = 40$

$n = 10$

$x = 9$

$h(x=9) = \frac{{}_{40}C_9 \times {}_{20}C_1}{{}_{60}C_{10}} = 0.07253$

④

$N = 15$
$C = 10$
$n = 3$

a) $x = 0$

$$h(x=0) = \frac{{}_{10}C_0 * {}_5C_3}{{}_{15}C_3} = 0.0219$$

b) $x = 1$

$$h(x=1) = \frac{{}_{10}C_1 * {}_5C_2}{{}_{15}C_3} = 0.2197$$

c) $x = 2$

$$h(x=2) = \frac{{}_{10}C_2 * {}_5C_1}{{}_{15}C_3} = 0.4945$$

d) $x = 3$

$$h(x=3) = \frac{{}_{10}C_3 * {}_5C_0}{{}_{15}C_3} = 0.2637$$

⑤

$N = 10$
$C = 6$
$n = 3$
$x = 2$

$$h(x=2) = \frac{{}_6C_2 * {}_4C_1}{{}_{10}C_3} = 0.5$$

⑥

$N = 15$
$C = 10$
$n = 4$
$x = 3$

$$h(x=3) = \frac{{}_{10}C_3 * {}_5C_1}{{}_{15}C_4} = 0.4395$$

(7)

N = 10

C = 3

n = 2

x = 0

$$h(x=0) = \frac{{}_3C_0 \times {}_7C_2}{{}_{10}C_2} = 0.4666$$

(8) N = 8

C = 6

n = 3

a) x = 3

$$h(x=3) = \frac{{}_6C_3 \times {}_2C_0}{{}_8C_3} = 0.3571$$

b) $1 - 0.3571 = 0.6429$

(9)

N = 15

C = 6

n = 5

x = 2

$$h(x=2) = \frac{{}_6C_2 \times {}_9C_3}{{}_{15}C_5} = 0.4195$$

Tarea Distribución Hipergeometrica

① $N = 50$, $C = 40$, $X = 4$, $n = 5$

a) $P(x=4) = \frac{{}_{40}C_4 * {}_{10}C_1}{{}_{50}C_5} = 0.43133$

b) $P(x=0) = \frac{{}_{40}C_0 * {}_{10}C_5}{{}_{50}C_5} = 0.000118$

$P(x=1) = \frac{{}_{40}C_1 * {}_{10}C_4}{{}_{50}C_5} = 0.003964$

$P(x=2) = \frac{{}_{40}C_2 * {}_{10}C_3}{{}_{50}C_5} = 0.04417 + 0.04825$

c) $h(x=3) = \frac{{}_{40}C_3 * {}_{10}C_5}{{}_{50}C_5} = 0.2098$

$h(x=5) = \frac{{}_{40}C_5 * {}_{10}C_0}{{}_{50}C_0} = 0.3105$

$P(x=?) = 0.0039 + 0.0441 + 0.2098 + 0.3105 + 0.4313 = 0.$

② $N = 10$, $C = 7$, $X = 2$, $n = 3$

a) $h(x=2) = \frac{{}_{7}C_2 * {}_{3}C_1}{{}_{10}C_3} = 0.525$

b) $h(x=3) = \frac{{}_{7}C_3 * {}_{3}C_0}{{}_{10}C_3} = 0.29166$