

Theorem The rectangular distribution is a special case of the discrete uniform distribution when $a = 0$ and $b = n$.

Proof The discrete uniform(a, b) distribution has probability mass function

$$f(x) = \frac{1}{b - a + 1} \quad x = a, a + 1, \dots, b.$$

When $a = 0$ and $b = n$ this becomes

$$f(x) = \frac{1}{n - 0 + 1} = \frac{1}{n + 1} \quad x = 0, 1, \dots, n,$$

which is the probability mass function of a rectangular(n) random variable.