

$$B(x|a, b) = \frac{1}{B(a, b)} x^{a-1} (1 - x)^{b-1}$$

$$\mathbb{E}x = \frac{a}{a+b}$$

$$\text{Mode}[x] = \frac{a-1}{a+b-2}$$

$$\text{Var}[x] = \frac{ab}{(a+b)^2(a+b-1)}$$

