

$$m := 4 \quad n := 20$$

$$u := 0, 0.1..30$$

$$v := 0, 0.1..30$$

$$f_u(u) := \frac{1}{2 \cdot \Gamma\left(\frac{m}{2}\right)} \cdot \left(\frac{u}{2}\right)^{\frac{m}{2}-1} \cdot e^{-\frac{u}{2}}$$

$$f_v(v) := \frac{1}{2 \cdot \Gamma\left(\frac{n}{2}\right)} \cdot \left(\frac{v}{2}\right)^{\frac{n}{2}-1} \cdot e^{-\frac{v}{2}}$$

$$f_{uv}(u, v) := f_u(u) \cdot f_v(v)$$

$$x(u, v) := \frac{u}{\frac{m}{n}} \quad u(x, v) := x \cdot \frac{v}{n} \cdot m$$

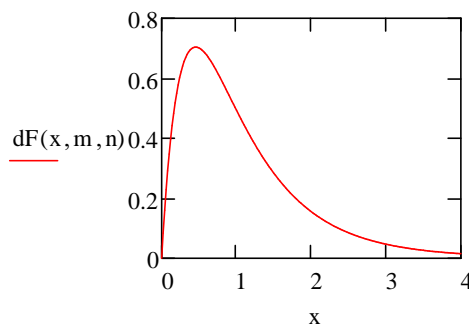
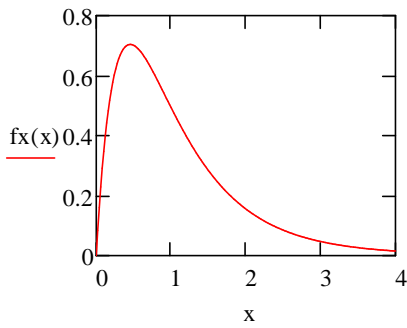
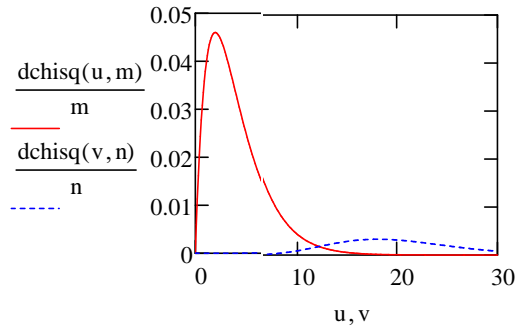
$$J(u, v) := \begin{pmatrix} \frac{1}{m} & -\frac{u}{m} \\ \frac{v}{n} & \frac{v^2}{n} \\ 0 & 1 \end{pmatrix}$$

$$f_{xy}(x, v) := f_{uv}(u(x, v), v) \cdot |J(x, v)|$$

$$J(x, v) := \begin{pmatrix} v \cdot \frac{m}{n} & x \cdot \frac{m}{n} \\ 0 & 1 \end{pmatrix}$$

$$f_x(x) := \int_0^\infty f_{xy}(x, v) dv$$

$$x := 0, 0.02..4$$



$$\int_0^\infty \frac{m+n-2}{r^2} \cdot e^{-r} dr$$

$$\begin{cases} \lim_{r \rightarrow 0^+} \Gamma\left(\frac{m}{2} + \frac{n}{2}, r\right) & \text{if } 0 < \frac{1}{2} \cdot \text{Re}(m) + \frac{1}{2} \cdot \text{Re}(n) \vee 0 < \text{Re}(m) \wedge (n-i) \in \mathbb{R} \\ \text{undefined} & \text{otherwise} \end{cases}$$