PROOF OF FORMULA 3.471.1

$$\int_0^u e^{-b/x}\frac{dx}{x^2} = \frac{1}{b}e^{-b/u}$$

Let $t = -b/x$. Then

$$\int_0^u e^{-b/x}\frac{dx}{x^2} = \frac{1}{b}\int_{-\infty}^{-b/u} e^t\,dt.$$

The last integral is elementary and it gives the result.