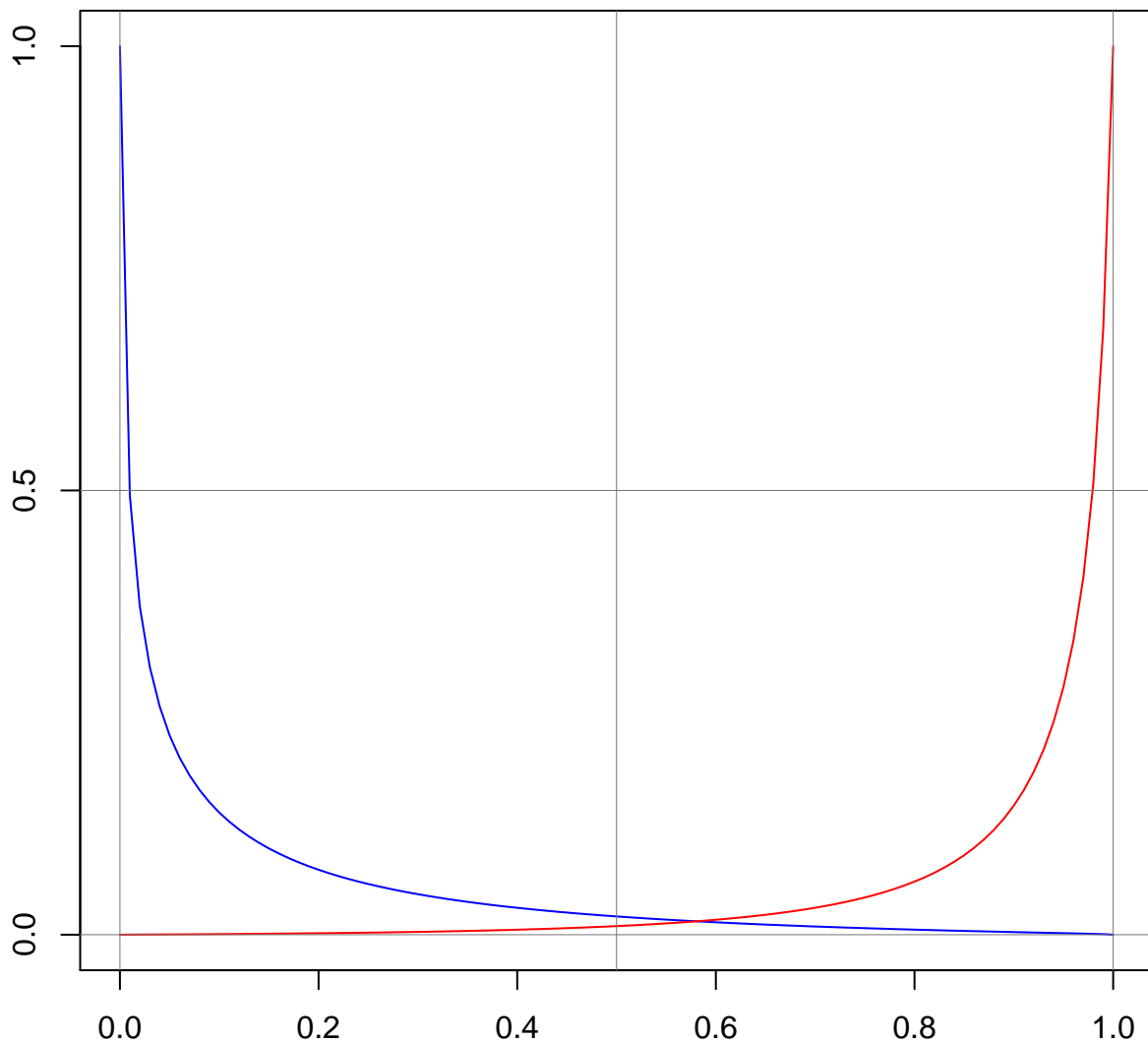


Integrand by inverse CDF (quantile function)
by Beta inverse (blue) and Gamma inverse (red)



Area under the integrands is $p = 0.054$