

# Handout 4: Beta, $\chi^2$ , and $t$ Distributions

STA 131B

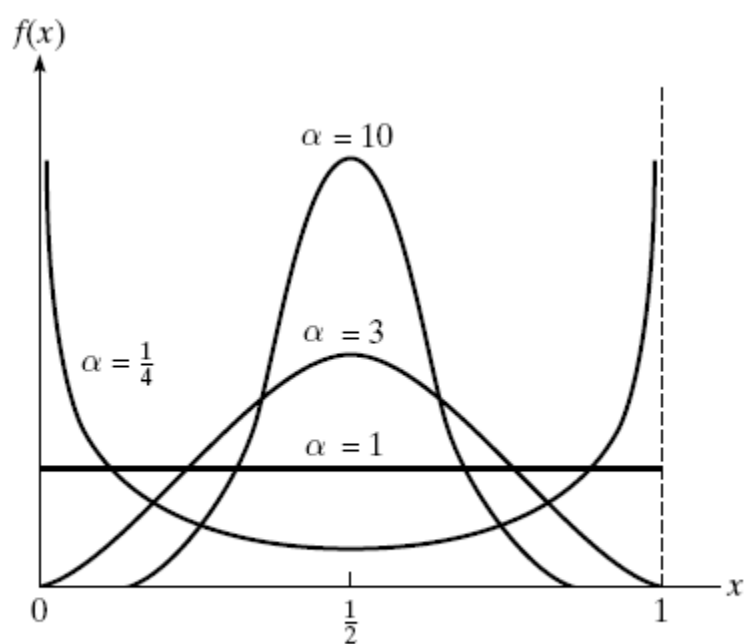


FIGURE : Beta densities with parameters  $(\alpha, \beta)$  when  $\alpha = \beta$ .

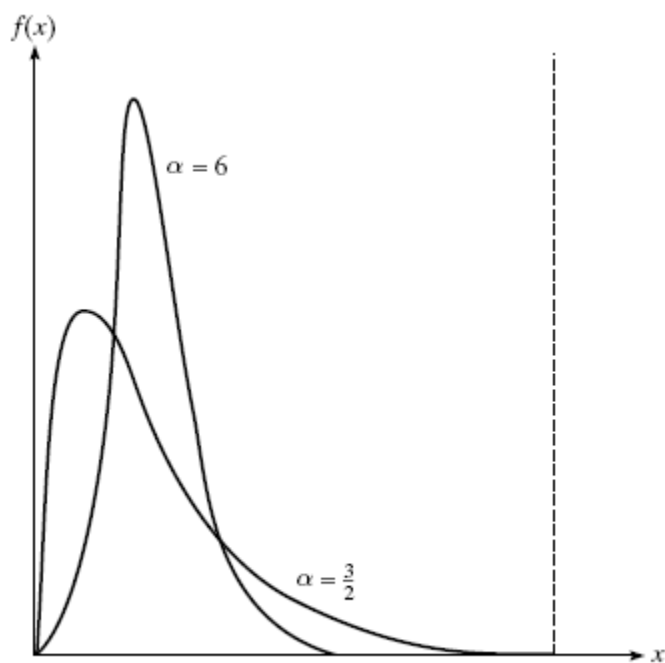
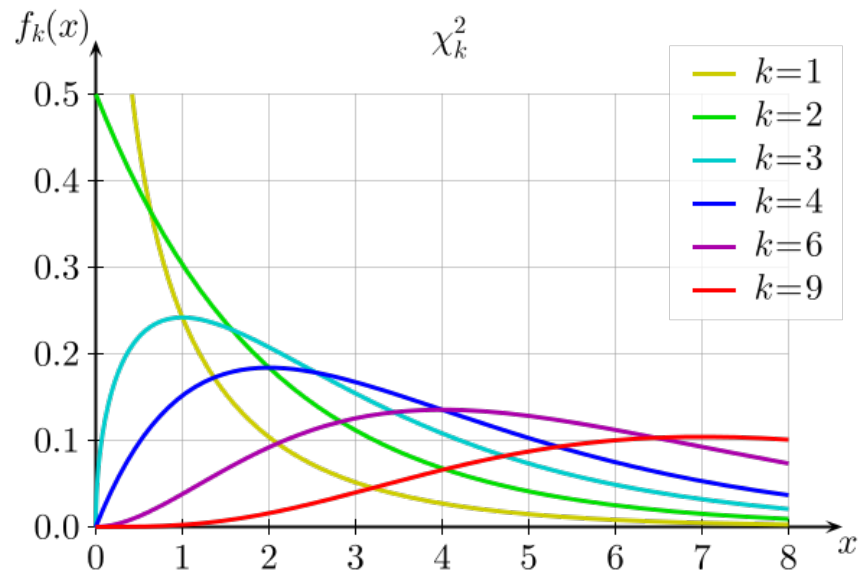
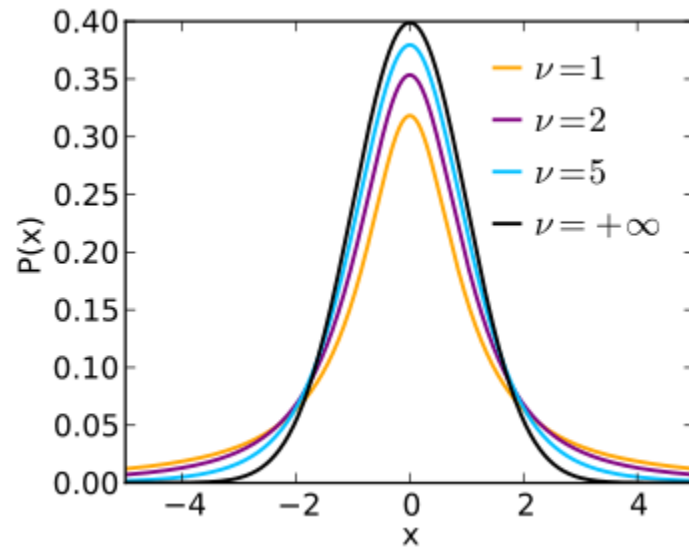


FIGURE : Beta densities with parameters  $(\alpha, \beta)$  when  $\alpha/(\alpha + \beta) = 1/20$ .



The  $\chi^2$  p.d.f. for different degrees of freedom.



The Student's  $t$  p.d.f. for different degrees of freedom.