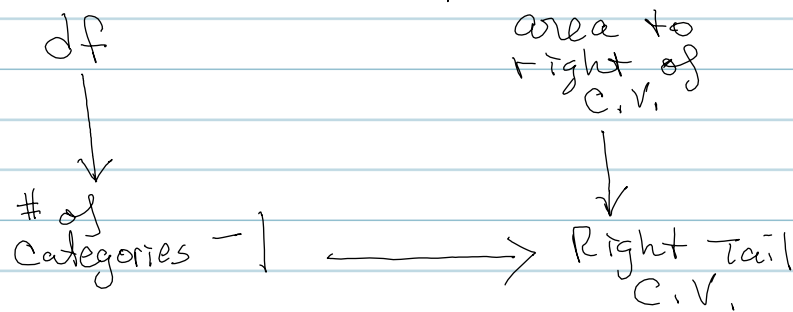
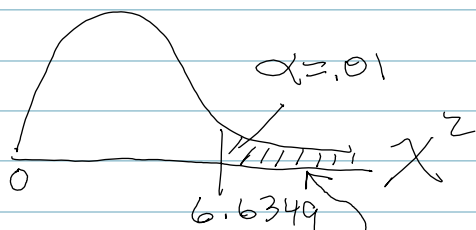


Table A4 - Chi-Square Distribution

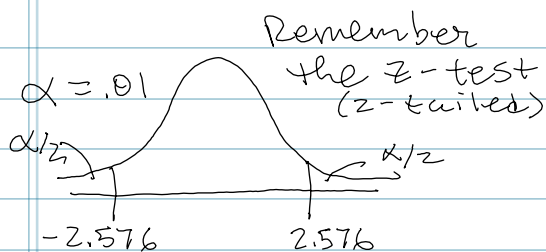


For our example,



df	$\alpha = .01$
↓	↓
$2 - 1$ $= 1$	6.6349

Our T.S. was $\chi^2 = 7.0872$ → Reject H_0 : $P_1 = .17$
 $P_2 = .83$



Remember the z-test (z-tailed)

$$\hookrightarrow Z^2 = 2.576^2 = 6.635$$

Note the critical value: $\chi^2 = 6.6349$

$\chi^2 = Z^2$ with one degree of freedom.

The Chi-square distribution is the distribution of sums of random z-scores squared. The number of squared z-scores is the degrees of freedom.

→ Conclusion: The data don't support the claim that 17% of youth have asthma (and 83% don't).