

Statistics

Lecture 21



Feb 19-8:47 AM

find $Z_{.1}$

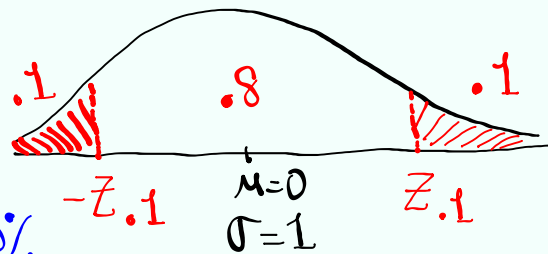
$$\alpha/2 = .1$$

Right-Tail Area

$$\alpha = .2$$

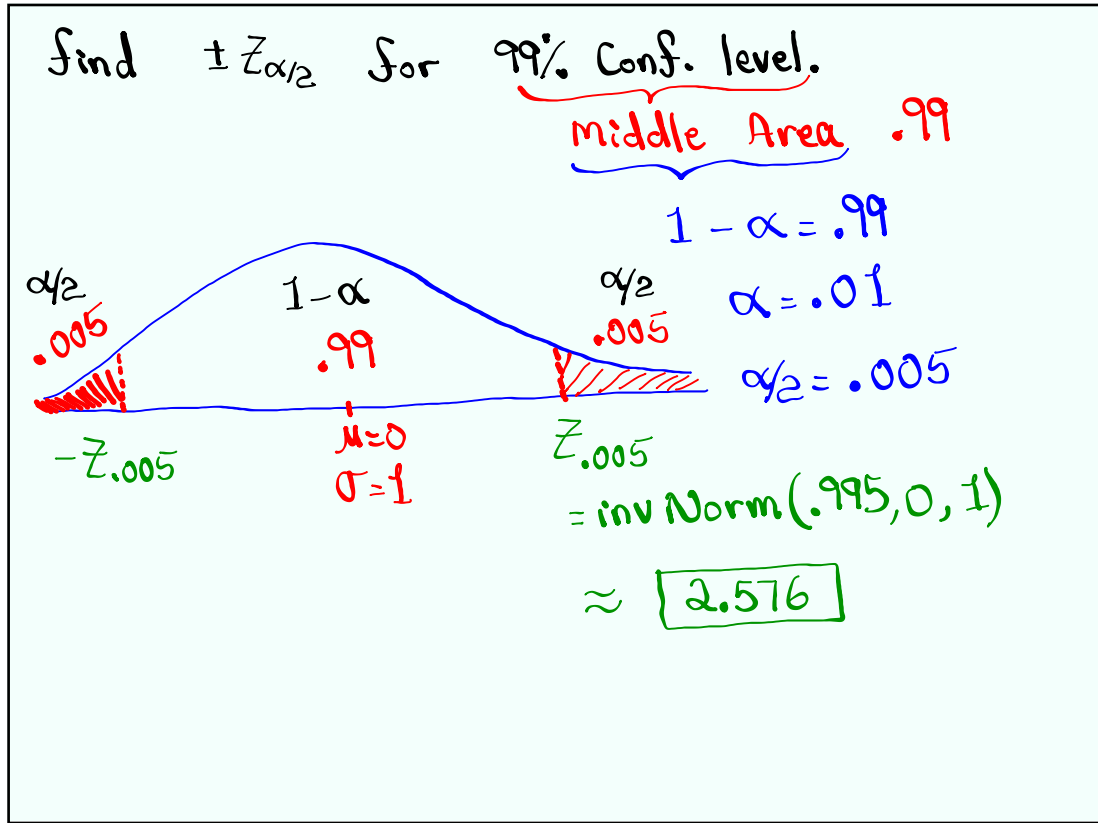
$$1 - \alpha = .8$$

Middle Area 80%

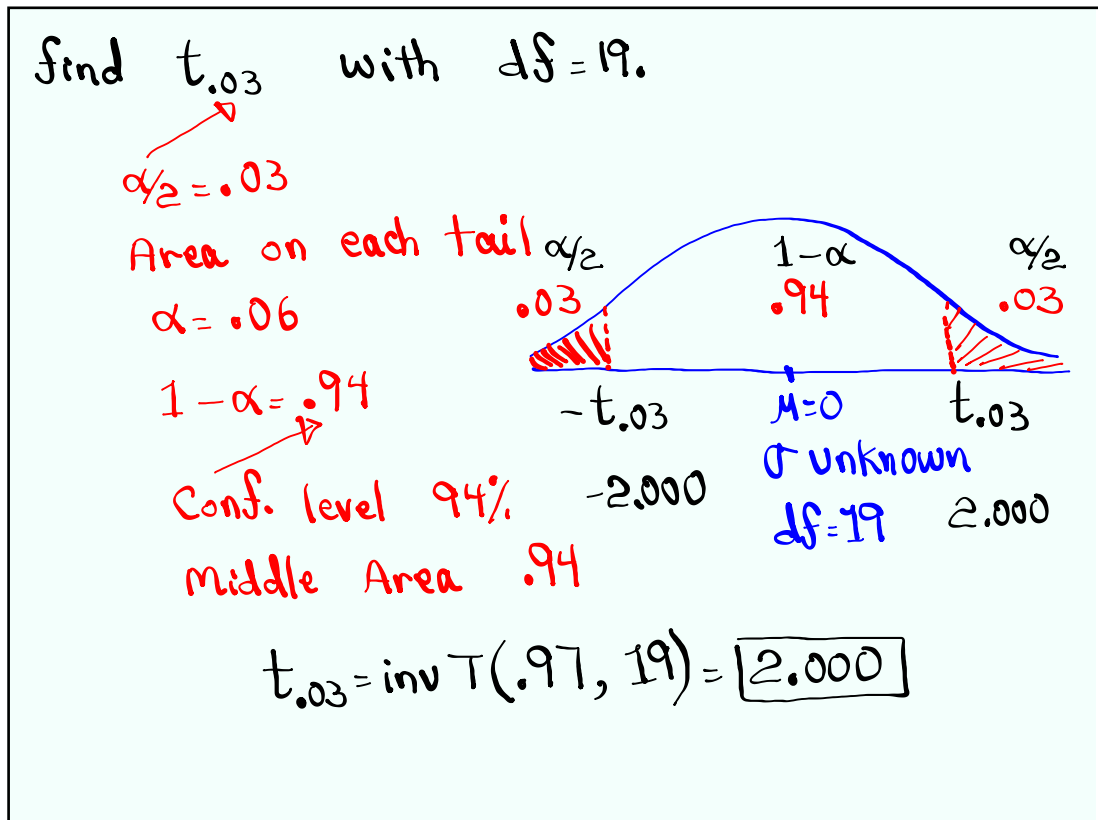


$$Z_{.1} = \text{inv Norm}(.9, 0, 1) = \boxed{1.282}$$

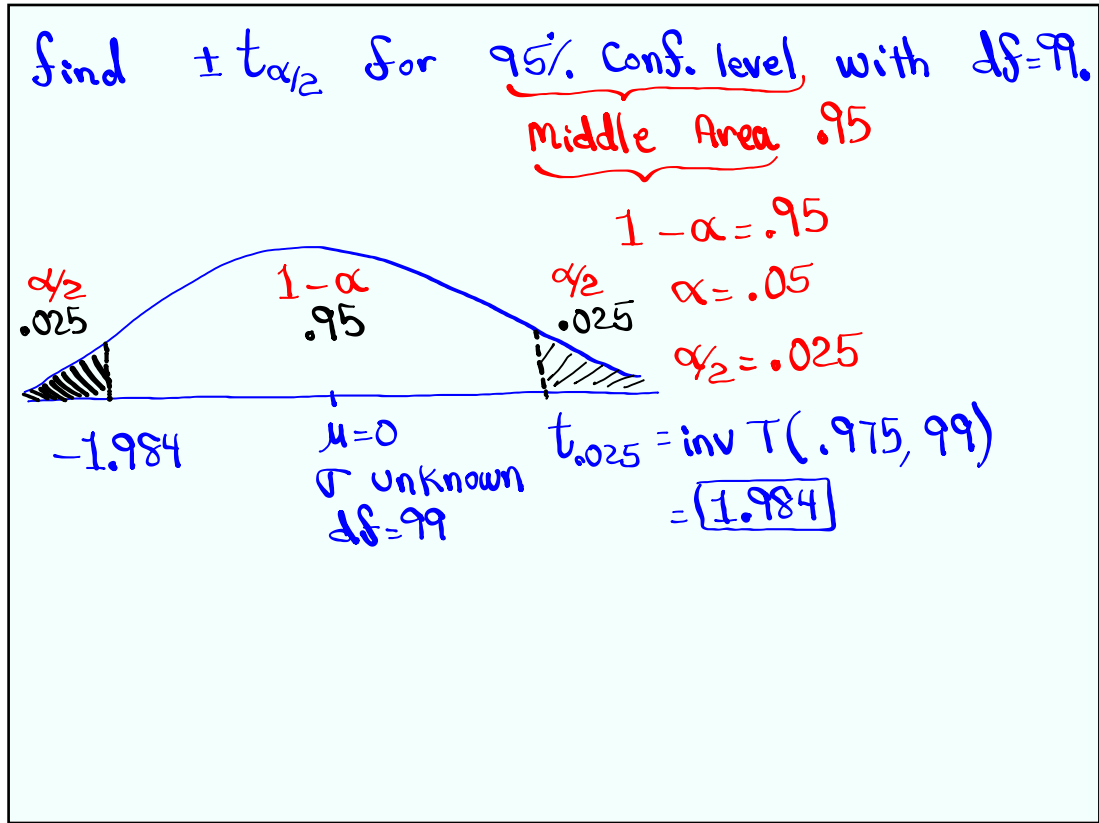
May 13-9:59 AM



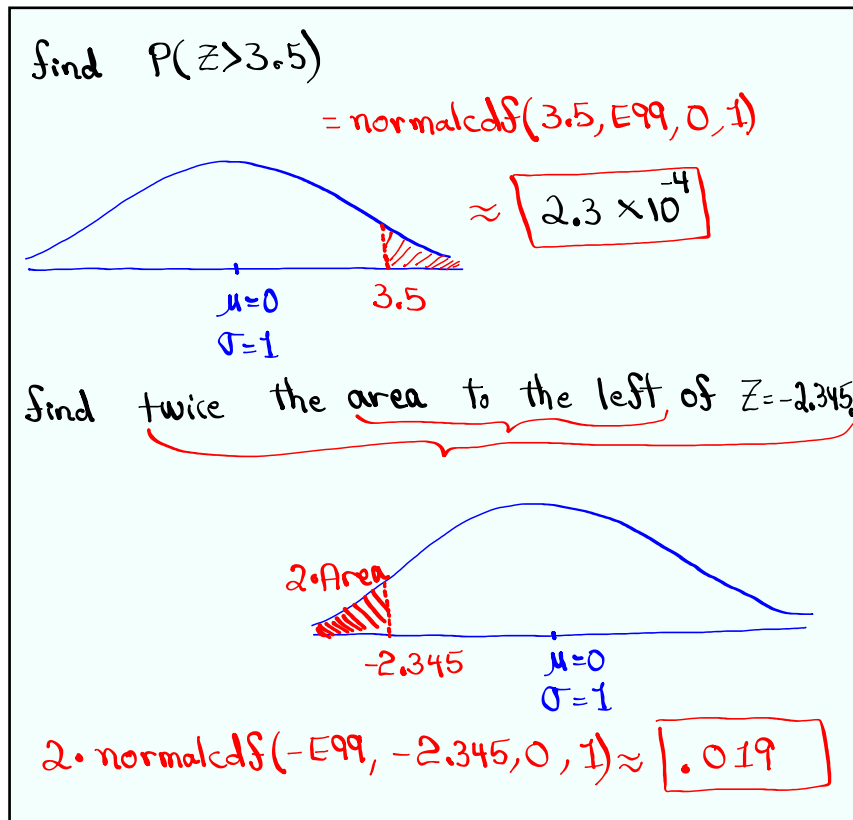
May 13-10:04 AM



May 13-10:09 AM



May 13-10:15 AM



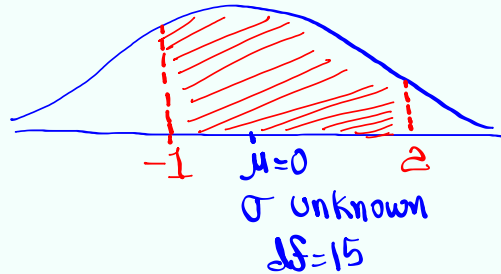
May 13-10:20 AM

find $P(-1 < t < 2)$ with $df=15$.

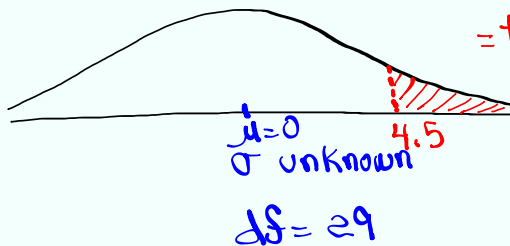
2nd **VARS**

$$tcdf(-1, 2, 15)$$

$$= \boxed{.801}$$



find $P(t > 4.5)$ with $df=29$.



$$= tcdf(4.5, E99, 29)$$

$$\approx \boxed{5.1 \times 10^{-5}}$$

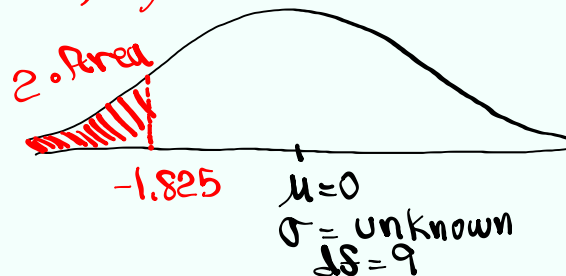
May 13-10:27 AM

find twice the area to the left of

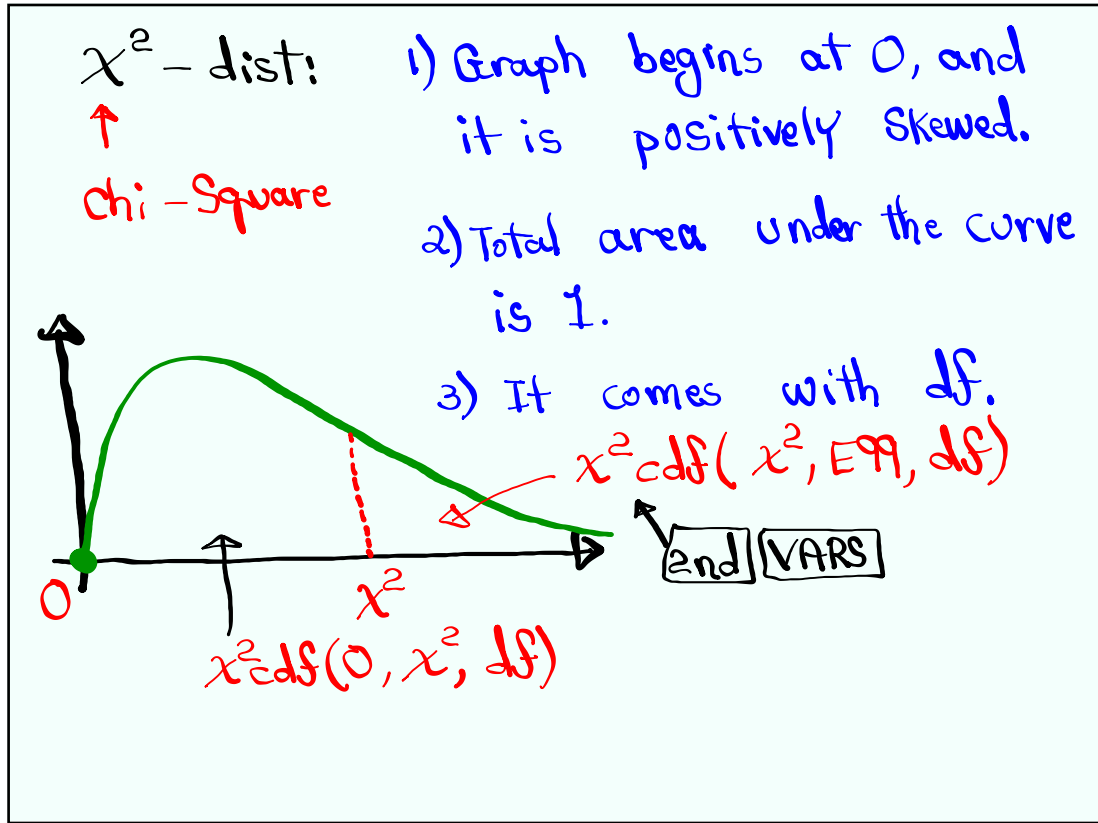
$t = -1.825$ with $df=9$.

$$2 \cdot tcdf(-E99, -1.825, 9)$$

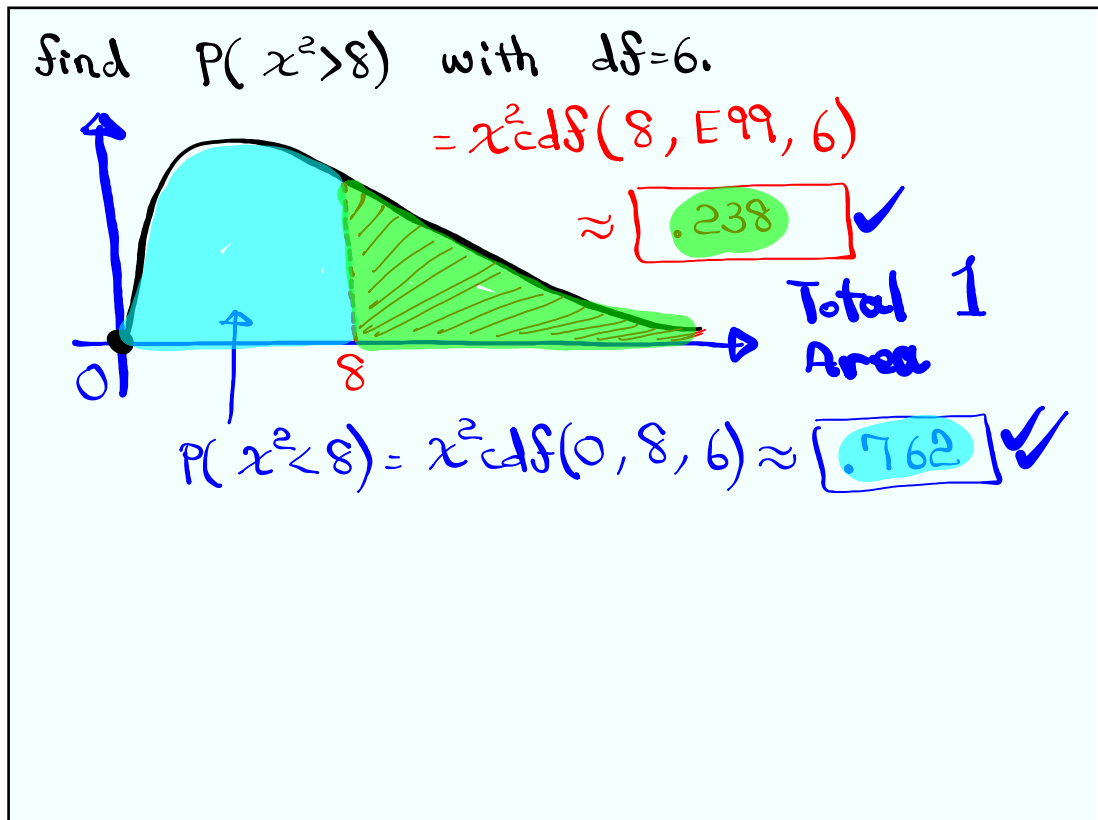
$$\approx \boxed{.101}$$



May 13-10:34 AM

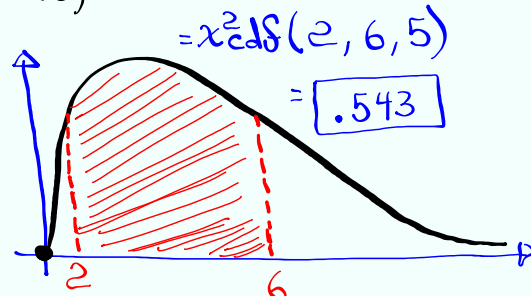


May 13-10:38 AM

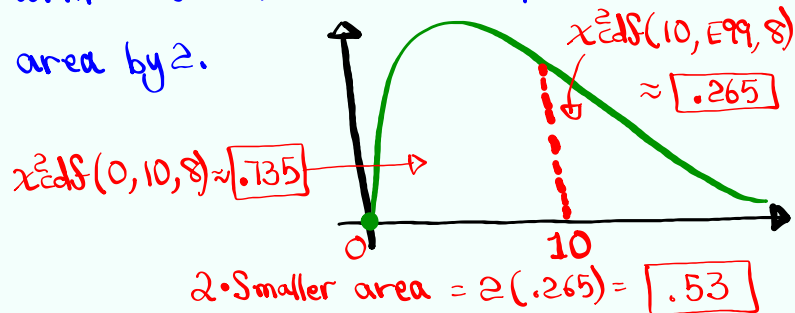


May 13-10:44 AM

Find $P(2 < \chi^2 < 6)$ with $df=5$.

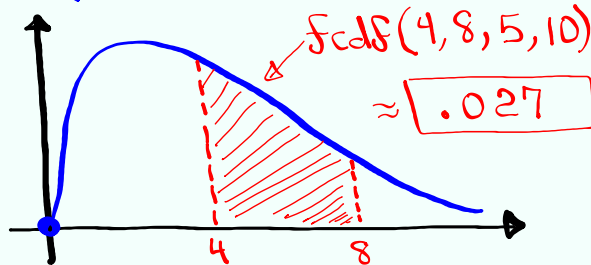


Find the area on each side of $\chi^2=10$ with $df=8$, then multiply the smaller area by 2.

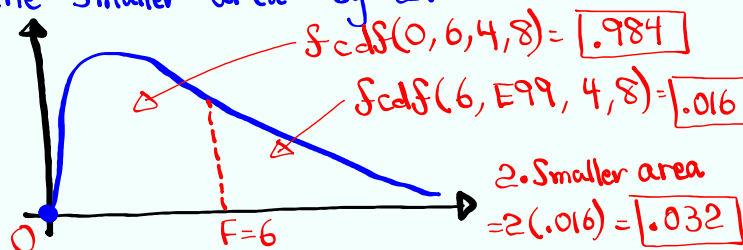


May 13-10:49 AM

Find $P(4 < F < 8)$ with $Ndf=5 \hat{=} Ddf=10$.



Find the area on each side of $F=6$ with $Ndf=4 \hat{=} Ddf=8$, then multiply the smaller area by 2.



May 13-10:58 AM