

4.

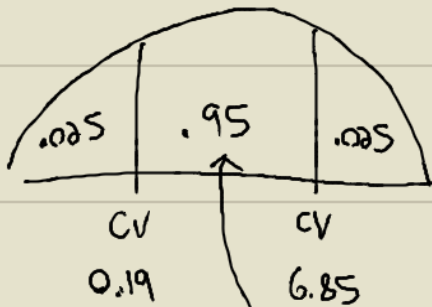
CLAIM:  $\sigma_1 \neq \sigma_2$

$\alpha = .05$   
 $n_1 = 8$   
 $S_1 = 3.3$   
 $n_2 = 6$   
 $S_2 = 3.6$

$H_0: \sigma_1 = \sigma_2 \quad \leq, \geq, =$   
 $H_1: \sigma_1 \neq \sigma_2 \quad <, >, \neq$

$$\text{LEFT CV} = \frac{1}{F_{.025, 5, 7}} = \frac{1}{5.29} = 0.19$$

$$\text{RIGHT CV} = F_{.025, 7, 5} = 6.85$$



TEST STATISTIC

2-SAMPFTEST

$$F = 0.84$$

BY HAND

$$F = \frac{3.3^2}{3.6^2}$$

$$F = 0.84$$

CONC: ACCEPT  $H_0$   
 REJECT  $H_1$   
 REJECT CLAIM

P-VALUE  
 $P = .8032$

5.

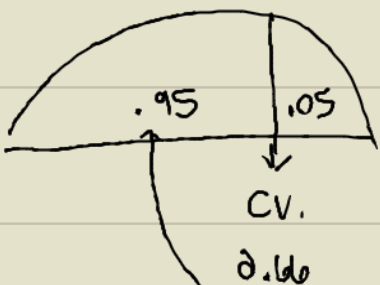
CLAIM:  $\sigma_1 > \sigma_2$

$\alpha = .05$   
 $n_1 = 20$   
 $S_1 = 4.2$   
 $n_2 = 12$   
 $S_2 = 4$

$H_0: \sigma_1 \leq \sigma_2$   
 $H_1: \sigma_1 > \sigma_2$

$$\text{RIGHT CV} = F_{.05, 21, 11} = \frac{2.77 + 2.54}{2}$$

$$= 2.66$$



TEST STATISTIC

2-SampFTEST

$$F = 1.1$$

BY HAND

$$F = \frac{4.2^2}{4^2}$$

$$= 1.1$$

CONC: ACCEPT  $H_0$   
 REJECT  $H_1$   
 REJECT CLAIM

$$P = .4498$$