

Math 110 Final Review

#75 Quantitative

#76 Means from 4 populations ($k=4$)

#77 ANOVA

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

H_1 : At least 1 mean is different

#78

$$S_{\bar{x}}^2 = (84.1188)^2 = 7075.98$$

#79

$$S_p^2 = \frac{S_1^2 + S_2^2 + S_3^2 + S_4^2}{4} = \frac{46.55^2 + 40.34^2 + 37.20^2 + 39.87^2}{4}$$

$$= 1700.03$$

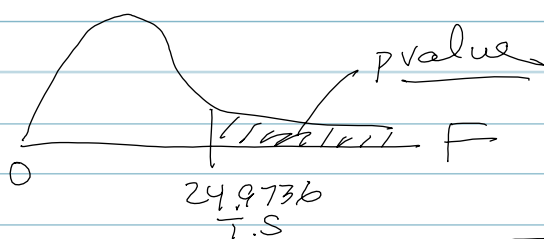
#80

$$F = \frac{n S_{\bar{x}}^2}{S_p^2} = \frac{6 \cdot 7075.98}{1700.03} = 24.9736$$

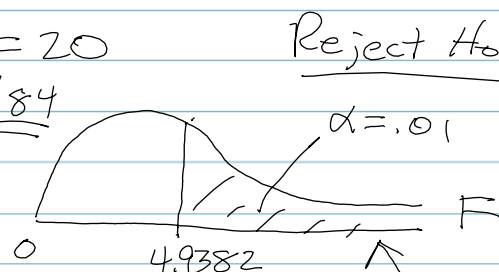
#81 $df_1 = k - 1 = 4 - 1 = 3$

#82 $df_2 = K(n-1) = 4(6-1) = 20$

#83



#84



#85 Reject H_0 , Support H_1

#86 The data do not support the claim that the mean compression strengths are equal.

Table A5

$df_1 \rightarrow 3$	$\alpha = .01$
df_2	
$\downarrow$	$\downarrow$
20	4.9382