

Math 110 Final Exam Review

$$\alpha = .06$$

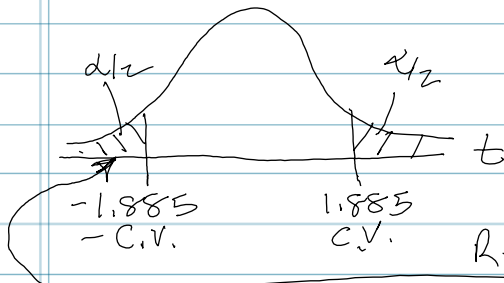
Female	Male
$n_1 = 233$	$n_2 = 258$
$\bar{x}_1 = 105156$	$\bar{x}_2 = 133442$
$s_1 = 98525$	$s_2 = 131090$

#54 Two Means

#55 $H_0: \mu_1 = \mu_2, H_1: \mu_1 \neq \mu_2$

#56 $n_1 = 233 > 30, n_2 = 258 > 30 \rightarrow$ Criteria Met.

#57 TS:
$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} = \frac{105156 - 133442 - 0}{\sqrt{\frac{98525^2}{233} + \frac{131090^2}{258}}}$$



$df = 473$

will be provided

$= -2.72$

Reject H_0

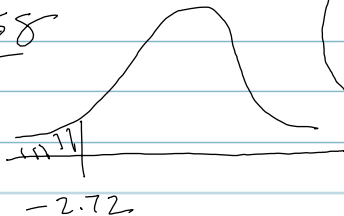
TABLE A2

df $\alpha = .06$
2-tail

473

(use 500) $\rightarrow 1.885$

#58



#59

Table A3

t-dist p-val

$df \rightarrow 100$ closest to 473

(t.s.)

2.72 $\rightarrow .9959$

$pval = 2(1 - .9959)$
 $pval = .0082$

#60 Reject H_0 & Support H_1
because $pval < \alpha$.

#61 The data support the claim that the mean salaries are different for female & male MBAs.