

This 2-sample
t-test: problems
next correlation
t-test:

read: LN pp. L-214 + L-244
DD extra office hour today 1:15-2:15-
Jack's lounge

AMS 7
24 May
17

no class Mon (holiday) *

hwk 3 due @
can us by
11:59 pm Fri 26
May 2017

take-home final given out
last day of classes, due 1 week later
(I will give extra office hours all that week)

* but discussion sections will take place
Th-Fri next week; Mon people need to
go to a Th-Fri disc. sec next week

today: LN p. 188 →

paired comparisons
formulas: $t = \frac{\bar{y}_2 - \bar{y}_1}{SE(\bar{y}_2 - \bar{y}_1)}$

$$SE(\bar{y}_1) = 0.2685$$

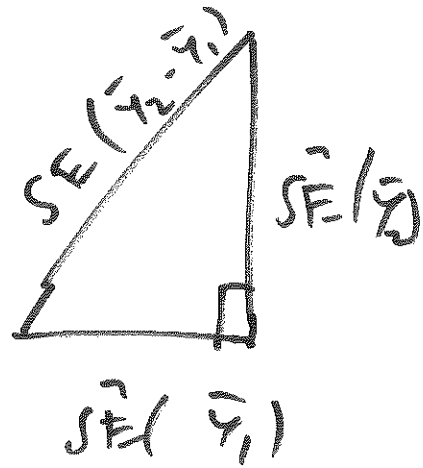
$$SE(\bar{y}_2) = 0.2419$$

Q: $SE(\bar{y}_2 - \bar{y}_1) = ?$

math fact | uncertainty in a sum or
difference between 2 indep. sample means

combines like the edges of a right triangle: (2)

Pythagoras



$$\vec{S}_E(\bar{y}_2 - \bar{y}_1) = \sqrt{\left[\vec{S}_E / \bar{u}_1\right]^2 + \left[\vec{S}_E(\bar{y}_2 / \bar{u}_2)\right]^2}$$

$$= \sqrt{\left(\frac{S_1}{u_1}\right)^2 + \left(\frac{S_2}{u_2}\right)^2}$$

~~50~~

$$\vec{S}_E(\bar{y}_2 - \bar{y}_1) = \sqrt{\frac{S_1^2}{u_1} + \frac{S_2^2}{u_2}} \quad \text{P-24 formula (11)}$$

