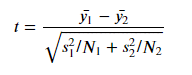
Assignment 16.7

Calculate the t-values:



1.



y1 – y2

= 5 – 8

-3

s1^2 = 1

s2^2 = 9

s1^2 /N1 = 1/200 = 0.005

s2^2 /N2 = 9/500 = 0.018

√( s1^2/N1) +( s2^2/N2)

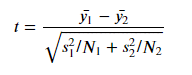
√(0.005) + (0.018)

√(0.023)

t = -3/0.151 = -19.867

2.





y1 – y2 = 1090 – 999 = 91

s1^2 = 160000

s2^2 = 900

s1^2 /N1 = 160000/900 = 177.777

s2^2 /N2 = 900/100 = 9

√( s1^2/N1) +( s2^2/N2)

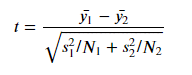
√(177.777) + (9)

√(186.777) = 13.666

t = 91/13.666 = 6.658

3.





y1 – y2 = 45 – 40 = 5

s1^2 = 2025

s2^2 = 1600

s1^2 /N1 = 2025/2000 = 1.0125

s2^2 /N2 = 1600/2000 = 0.8

√( s1^2/N1) +( s2^2/N2)

√(1.0125) + (0.8)

√(1.8125) = 1.346

t = 5/1.346 = 3.714

1. 𝑦1¯=1090y1¯=1090, 𝑦2¯=999y2¯=999, 𝑠1=400s1=400, 𝑠2=30s2=30, 𝑁1=900N1=900, 𝑁2=100N2=100
2. 𝑦1¯=45y1¯=45, 𝑦2¯=40y2¯=40, 𝑠1=45s1=45, 𝑠2=40s2=40, 𝑁1=2000N1=2000, 𝑁2=2000