BASM Hw #1 Report

exam = read.table(file = "exam\_results.txt", header = TRUE)

scores = exam$scores

# 1

fifth = scores[5] # direct select fifth element

# fifth = 65

# 2

sorted\_scores = sort(scores) # sort scores with asc

fifth\_lowest = sorted\_scores[5] # select fifth element

# fifth\_lowest = 51

# 3

five\_lowest = sorted\_scores[1:5] # direct select five element

# five\_lowest = [10 18 48 49 51]

# 4

sorted\_scores\_dec = sort(scores, TRUE) # sort scores with dec

five\_highest = sorted\_scores\_dec[1:5] # select five element

# five\_highest = [100 95 94 91 90]

# 5

std = sd(scores)

# std = 17.24

# 6

mean = mean(scores)

scores\_diff = scores - mean

# scores\_diff = [11.16 -15.84 21.16 -9.87 ...etc]

# 7

avg\_diff = mean(abs(scores\_diff)) # calculate avg\_diff using absolute distance

# avg\_diff = 12.6864

# 8

boxplot(scores, horizontal = TRUE)

stripchart(scores, method = "stack", add = TRUE)

