MSCR 500 and 533 Final Exam

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Question 1

Blood-pressure measurements taken on the left and right arms of a person are assumed to be comparable. To test this assumption, 40 people are randomly sampled, and systolic blood-pressure (SBP) readings are taken simultaneously on both arms by two observers. Assume that the two observers are comparable in skill and experience, and assume that left arm SBP, right arm SBP, and the difference between left and right arm SBP are all symmetric but distinctly non-normal.

- assumption is left/right arms have same blood pressure in a person
- sample is from 40 pts at random
- simultaneously measures are taken of BP
- three variables are created: left arm, right arm, and difference between both arms
- null hypothesis would be the difference b/w arms is 0
- non-normal distribution, but n = 40
- one-sample is given

The most appropriate procedure for testing whether or not the two arms give comparable results is:

One Sample T-test (based on M&M guidelines for $N \geq 40$

Question 2

Question 3

Question 4

Question 5

Question 6

Question 7

Question 8

Question 9

Question 10

"I, *Anish Sanjay Shah*, will complete all the work for question 10 before the Spring 2020 semester begins."