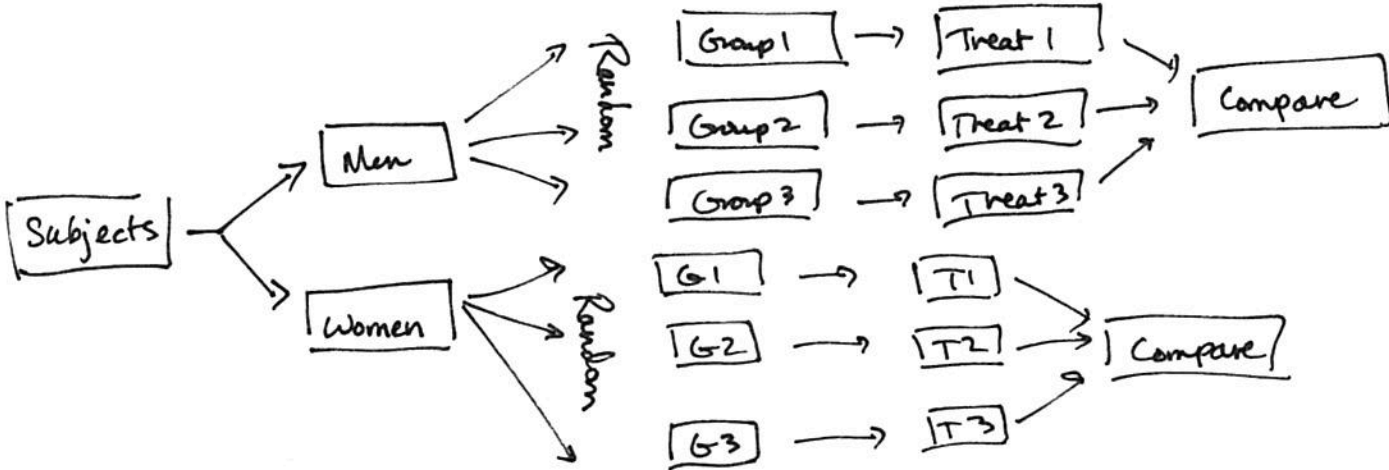
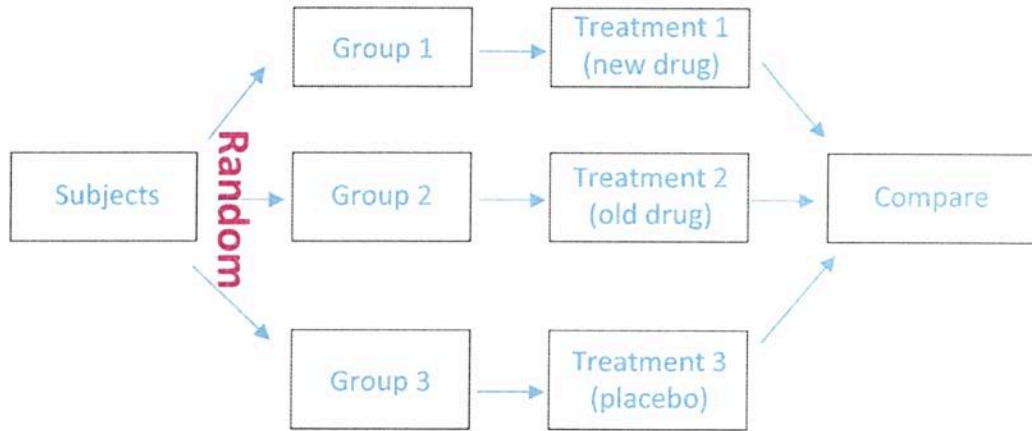


Instructions: Show all work. Read each problem carefully and be sure to answer all parts of all questions. (Check for a page-2.) If you use Excel to answer parts of the questions, you must submit your Excel file along with the quiz solutions. Include the final answers in the main quiz document. Do not only say "see Excel" for answers. Exact answers are preferred unless the problem tells you specifically to round.

1. Redraw the Experimental Diagram below to reflect a block design.



2. Describe the process of systematic sampling. How is it carried out? Give an example of when it could be applied.

random choose first element, then select every kth person after
w/ k fixed.

frequently used in lines at checkouts, airports, border crossings, etc.

3. For each of the variables below, circle the correct set of descriptors (one each i-iii).

a. Vehicle paint colors

- i. Categorical quantitative
- ii. Nominal ordinal interval ratio
- iii. Discrete continuous NA

b. Earthquake strength on the Richter scale

- iv. Categorical quantitative
- v. Nominal ordinal interval ratio
- vi. Discrete continuous NA

c. Amount of student loan debt

- vii. Categorical quantitative
- viii. Nominal ordinal interval ratio
- ix. Discrete continuous NA