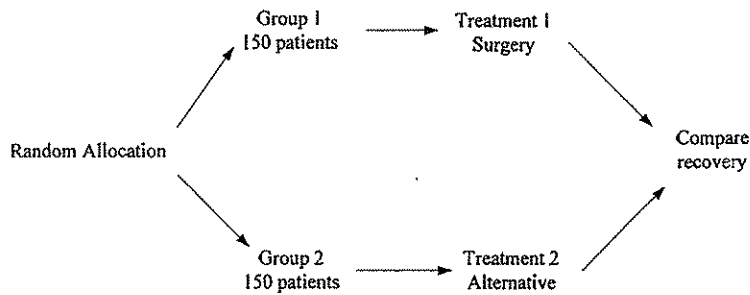


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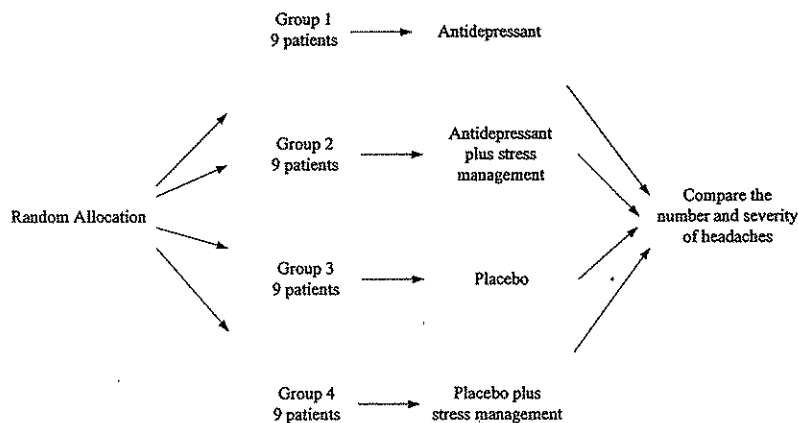
5.39 (a) Expense, condition of the patient, etc. In a serious case, when the patient has little chance of surviving, a doctor might choose not to recommend surgery; it might be seen as an unnecessary measure, bringing expense and a hospital stay with little benefit to the patient.
 (b)



5.40 Assign nine subjects to each treatment. A diagram is below; if we assign labels 01 through 36, then line 130 gives:

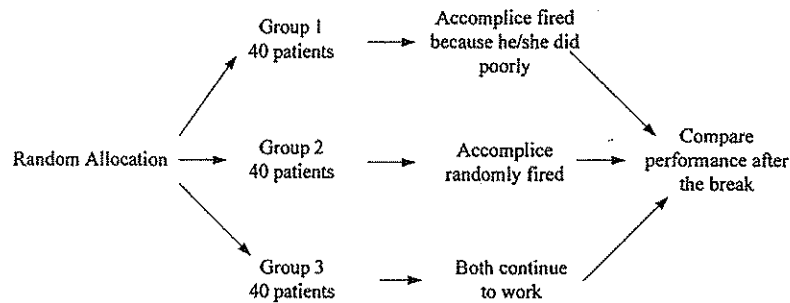
Group 1		Group 2		Group 3	
05 Chen	32 Vaughn	31 Valasco	02 Asihiro	35 Willis	11 Fleming
16 Imrani	04 Bikalis	18 Kaplan	36 Zhang	21 Marsden	15 Hruska
17 James	25 Padilla	07 Duncan	23 O'Brian	26 Plochman	12 George
20 Maldonado	29 Trujillo	13 Han	27 Rosen	08 Durr	14 Howard
19 Liang		33 Wei		10 Farouk	

The other nine subjects are in Group 4.

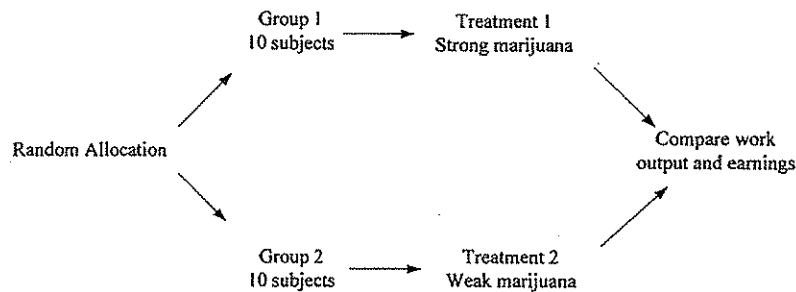


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5.41 (a) A diagram is shown below. (b) Assigning the students numbers from 001 to 120, using line 123 from Table B, the first four subjects are 102, 063, 035, and 090.



5.42 (a) A diagram is shown below. (b) Label the subjects from 01 through 20. From line 131, we choose 05, 19, 04, 20, 16, 18, 07, 13, 02, and 08; that is, Frankum, Wenk, Edwards, Zillgitt, Valenzuela, Waespe, Hankinson, Shenk, Colton, and Mathis for one group, and the rest for the other.



5.43 The second design is an experiment—a treatment is imposed on the subjects. The first is an observational study; it may be confounded by the types of men in each group. In spite of the researcher's attempt to match "similar" men from each group, those in the first group (who exercise) could somehow be different from men in the non-exercising group.

5.44 (a) A diagram is shown below. (b) If we assign labels 01, ..., 18 and begin on line 142, then we select: 02, 08, 17, 10, 05, and 09 for Group 1; 06, 16, 01, 07, 18, and 15 for Group 2. The remaining rats are assigned to the placebo group.