

Game 25 – Wedding Reception

At a wedding reception, there are exactly eight large tables—F, G, H, I, J, L, M and N. Each table is seated according to the following conditions:

Exactly four tables are reserved for the bride's family; the other four are reserved for the groom's family.

The family seated at table J is also seated at table M.

Between table F and table I, one table is reserved for each spouse's family.

The groom's family is sitting at table G.

If the bride's family is sitting at table L, the groom's family is sitting at table M.

1. Which one of the following could be the four tables reserved for the bride's family?
 - A. F, H, I and L
 - B. F, H, J and L
 - C. G, I, J and M
 - D. H, I, J and M
 - E. H, J, L and M
2. Which one of the following is a complete and accurate list of the tables any one of which could be for the bride's family?
 - A. H, I, L, M and N.
 - B. F, H, J, L, M and N.
 - C. F, H, I, J, L, M and N.
 - D. G, H, I, J, L, M and N.
 - E. F, G, H, I, J, L, M and N.
3. If N is reserved for members of the same family as L, which one of the following pairs of tables must be reserved for members of different families?
 - A. G and L
 - B. M and H
 - C. J and I
 - D. F and G
 - E. H and G

4. If the bride's family is seated at table J, then the groom's family must be seated at table
 - A. F
 - B. I
 - C. N
 - D. H
 - E. L
5. If the groom's family is sitting at table J, which one of the following is a pair of tables the groom's family could also sit at?
 - A. F and I
 - B. F and M
 - C. H and I
 - D. H and L
 - E. L and M
6. Which one of the following statements must be true?
 - A. If the groom's family is seated at table I, the bride's family is seated at table H.
 - B. If the groom's family is seated at table J, the bride's family is seated at table F.
 - C. If the groom's family is seated at table J, the bride's family is seated at table H.
 - D. If the groom's family is seated at table L, the groom's family is also seated at table H.
 - E. If the groom's family is seated at table H, the groom's family is also seated at table M.

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1. D
2. C
3. E
4. E
5. B
6. C

On Question 1, the four incorrect answers each break one of the rules. Question 2 requires that you make the inference that D and E are wrong because of the second to last rule, but everything else works.

For Question 3, if N and L are reserved for the same family, no matter which family this is, H will be placed with the bride's family, since there is no room for H if N and L are placed with the groom's family given that G and either R or I takes up a space. Since G is always reserved for the groom's family, answer E is impossible.

The key to Question 4 is the contrapositive of the last rule. J is reserved for the bride's family; thus, so is M—which means L is reserved for the groom's family (because if L was reserved for the bride's family, M would be reserved for the groom's). This leads you to answer E.

Question 5 is a matter of plugging out the inferences—if the groom's family is at table J, then they are also at table M and in addition, they must be at G and either F or I under the rules. This excludes four answers.

On Question 6, if the groom's family is at table J, they must also be seated at table M—and since the bride's family must also be at table G and either table F or I under the rules, the bride's family must be at the other four tables.