Painting the room

This game harkens back to a type of game that was occasionally tested in the early 1990s. It is called a table game because the scenario often involves people sitting around a table and it is your job to seat them according to the rules. Although this game is rarely tested, it is always possible that it will make an appearance. To ensure the best score, you must prepare for these rare games as well as the common ones. How do you diagram it? Sometimes the LSAT will actually provide a picture or partial diagram in the setup paragraph if it would be too confusing otherwise. In this game, no picture was provided because it is easy to visualize what a room with four walls looks like. (Figure 1) Rule 1 clarifies that a wall will not have two different colors or finishes. Rule 2 says that a wall cannot be the same color as a neighboring wall. This is the "no neighbors" rule, like in simple line games. Rule 2 allows you to make a warranted conclusion. Since there is one red wall (Rule 5), the other three walls must either be two white and one tan, or one white and two tan. (Figure 1) Anything else runs afoul of Rule 1, which prohibits neighboring walls from being the same color. Rule 3 is a bit unusual. It requires that, if there are two or more walls with the same finish, then those two, or three, walls *must* neighbor each other. For example, there cannot be two satin walls on opposite sides of the room and two latex walls on opposite sides of the room. Thinking through the permutations, you realize that all four walls can be satin. Not all four walls can be latex, because at least one wall is tan and tan walls cannot be latex. Also, there can be three satin and one latex wall, or three latex and one satin wall. Finally, there can be two latex and two satin walls, but if there are, make sure to observe Rule 3. It is fairly easy to graph the permutations for the finishes, but it is probably unnecessary. (Figure 2) Do not be misled by the locations (for example, red at the top of the diagram). A common mistake test-takers make on table games is to forget that there are no fixed positions. A diagram can be read in the clockwise or counter-clockwise direction and can start at the top, bottom, or sides, unlike a line, which has definite positions (first, second, third, etc.).

Possible paint colors: R, W, T, W or R, T, W, T

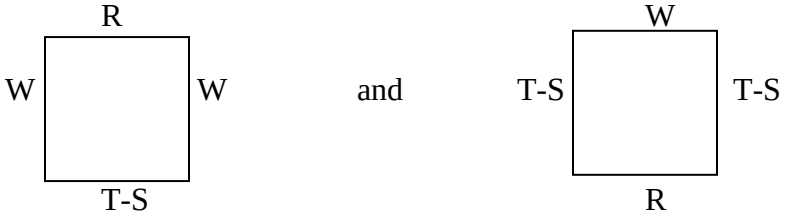

Fig. 1

Possible Finishes: 0L/4S, 1L/3S, 2L/2S, 3L/1S

Fig. 2

1. (B) – Even when the game is a bit different or unusual, you should be able to use answer elimination to eliminate the wrong answers.
   (A) Per Rule 2, neighboring walls cannot be the same color.
   (B) * This is a valid order.
   (C) This choice contains a tan latex, which violates Rule 4.
   (D) This choice splits the two latex and two satin walls so that they don't touch each other, thus violating Rule 3. It also places two white walls next to each other, violating Rule 2.
   (E) This violates Rule 5, because it contains two reds.

2. (D) – If there is one satin wall and three latex walls, then which walls must be which? If the single red wall were satin, then there could be no tan walls (Rule 4 prohibits tan latex); so three walls would need to be white. But this would run afoul of Rule 2, since the three whites would neighbor each other. Could the single satin wall be white? Again, there would be the problem of three white walls. So, the satin wall must be the tan wall, which must separate the two white walls. (Figure 3)
   (A) Although the red wall must be latex, it does not have to be the north wall. Remember, unless the question stem introduces a fixed position, there is no way to know exactly which walls are which color.
   (B) Again, like (A), there is no reason any particular color must be on the north or south wall.
   (C) This is false, as you learned during the analysis.
   (D) * This is true. The only solution is to have two white walls, one tan wall, and one red wall.
   (E) See (D).

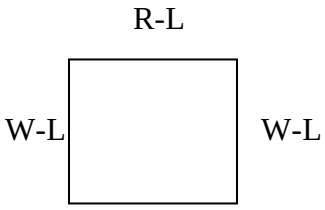

Fig. 3

3. (E) – This question approaches the same issue as the previous question, but from a slightly different angle. The single tan wall is clearly satin. There are two possible diagrams you could create. First, the latex wall could be the red wall and the two white walls would be satin. Second, the latex wall is one of the white walls, and the other white wall is satin and the red wall is satin. Since this is a must be true question, look for an answer choice that is compatible with both of the possible diagrams.
   (A) There is a 50/50 chance the red wall is latex.

(B) This has the same analysis as (A), there is a 50/50 chance the red wall is satin.
(C) There could be one or two white satin walls.
(D) This has the same analysis as (C).
(E) * Correct, it must be true that there is at least one white satin wall.

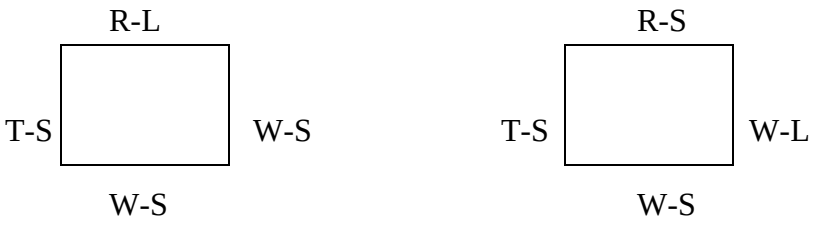

Fig. 4

4. (D) – Remember to keep the two satin walls next to each other. Can the two satin walls both be tan? No, because Rule 2 requires that the two tan walls not touch each other. Can the satin walls be a red wall and a white wall? No, because there must be one tan wall, and tan walls must be satin. Can the satin walls be a red wall and a tan wall? No, because the two remaining walls would be white and latex. The white walls are not permitted to touch, but the two latex walls must touch, so this is impossible. Finally, can the two satin walls be tan and white? Yes, this would allow for these two walls to touch each other, while allowing the white latex wall and red latex walls to touch each other without violating Rule 2. (Figure 5)
(A) See the diagram. The red wall must be latex.
(B) See the diagram. One of the two white walls must be latex.
(C) There cannot be two tan walls, as discussed in the analysis.
(D) * There must be two white walls.
(E) The tan wall must keep the two white walls separated, so the tan wall cannot touch the red wall.

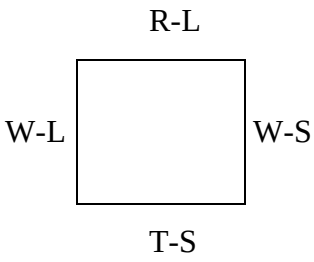

Fig. 5

5. (E) – Sometimes the final question suspends or modifies one of the conditions. This requires you to go back and rethink the warranted

conclusions, as well as your initial diagram. This set did not have much of a diagram to begin with, so it is not difficult to adjust for this change in the rules. But when the diagram is intricate and the analysis contains many intermediate steps, it can be too time-consuming to re-do the entire diagram. In this question, you are told that Rule 5 no longer applies. What does that mean? It means there can be zero red walls. It also means there can be two red walls. It also means there still can be one red wall. So all the previous diagrams are valid, but there are several new possibilities. If you graphed them, you would realize that there could be two tan/two white, two red/two tan, two red/two white, two red/one white/one tan. Rather than diagram all these permutations, review the answer choices for guidance, since this in an EXCEPT question.

(A) There cannot be three red walls or three white walls (because of Rule 2). Could there be two red walls and two white walls? Yes, red and white have no limitations with respect to the finish, so this can be true. (Figure 6)

(B) Similar to (A), red and white have no special limits with respect to finish.

(C) Can there be two tan satin walls, one red satin wall, and one red latex wall? Yes, the red and tan walls would alternate.

(D) Similar to (C), the two tan walls could be satin, leaving the satin and latex for the white walls.

(E) * This is not possible. Although it is okay to have the two white walls facing each other and the two tan walls facing each other, if there were two latex walls, then one of the tan walls would have to be latex, violating Rule 4.

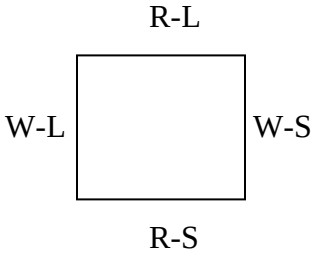

Fig. 6