Best in Show Solution – Graydon Strachan

Given four dogs Bruno, Kitty, O'Reilly, Sweetie and three ribbons red, blue, yellow, determine which dog should be assigned each ribbon, such that one assignment of each array below is also in the final assignment. Each element in each array represents an assignment to a given ribbon, the first element denotes assignment to the red ribbon, for example.

L = [Sweetie, Kitty, O'Reilly]

J = [Bruno, Sweetie, O'Reilly]

B = [Kitty, Bruno, Sweetie]

Every array only contains one correct element of the final array, this means that any assignments that are present in any two arrays can be disregarded. As such, it can be determined that O'Reilly does not win the blue ribbon, because arrays L and J both make this assumption. Therefore, Sweetie must win the blue ribbon. Array L makes the guesses Sweetie and O'Reilly respectively therefore, the other guess that they make must be correct. Kitty must therefore win the yellow ribbon. Both arrays L and B have had their correct assignments identified leaving only array J as unassigned. The blue ribbon can be assigned to Bruno, completing the final array given below.

F = [Bruno, Kitty, Sweetie]

Bruno wins the red ribbon, Kitty wins the blue ribbon, Sweetie wins the yellow ribbon and O'Reilly wins no ribbon.