Data Structures:

* Ordered list of states
* Set of colors
* Set of states
* Array of state values (for each state)
* Array of color multiplier values (for each color)
* Array of adjacent states (for each state)
* Array of valid state colors (for each state)
* Array of assigned color (for each state)

Algorithm:

1. Variables passed in:
   1. Current state
   2. Current state color combo
   3. Current valid state colors
2. Set current state color to empty
3. Remember the values passed into the procedure:
   1. Current valid state colors
   2. Current state color combo
4. If there are no more colors that can be assigned to the current state, then exit
5. Loop through the valid state colors for the current state:
   1. Update state color combo 🡪 Assign the current color to the state
   2. Calculate the score so far
   3. If the current state is the last state, record the score as the best if it is the best so far
   4. Otherwise the current state is not the last one:
      1. If the score is worse than the best so far, then don’t bother adding any more states because the score will only be less optimal
      2. Otherwise:
         1. Update valid state colors 🡪 Remove the assigned color from all states adjacent to the current state
         2. Call the procedure for the next state
      3. Reset these values to what they were when first entering the procedure:
         1. Current valid state colors
         2. Current state color combo