Question#1.

==

board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]

1. getPositions(board,"Yellow")   [0.25 Marks]
    [(0,1)]

2. getPositions(board,"Red")   [0.25 Marks]
    []

==

board=[['Yellow','Yellow','DarkBlue'],['LightBlue','Purple','Gold'],['Orange','Pink','Orange']]

3. getPositions(board,"Yellow")   [0.25 Marks]
    [(0, 0), (0, 1)]

4. getPositions(board,"Orange")   [0.25 Marks]
    [(2, 0), (2, 2)]

5. getPositions(board,"Red")   [0.25 Marks]
    []

6. getPositions(board,"DarkBlue")   [0.25 Marks]
    [(0, 2)]

==

7. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark
    Blue"],["Teal","Purple","Gold"]]

    piece="Orange"

    getPositions(board,piece))   [0.5 Marks]

    [(1, 1)]

==

8. board=[["Pink","Yellow","Light Blue"],["Pink","Orange","Pink"],["Teal","Pink","Gold"]]
    piece="Pink"

    getPositions(board,piece))   [0.5 Marks]
    [(0, 0), (1, 0), (1, 2), (2, 1)]

==

9. board=[["Pink","Yellow","Light Blue"],["Pink","Orange","Dark Blue"],["Teal","Purple","Gold"]]
   piece="Red"

   getPositions(board,piece)   [0.5 Marks]
   []

Question#2.

==

board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]

1. isTouching(board,"Orange","Yellow")   [0.5]
    True

2. isTouching(board,"Pink","Teal")   [0.5]
    False

==

board=[['Yellow','Yellow','DarkBlue'],['LightBlue','Purple','Gold'],['Orange','Pink','Orange']]

3. isTouching(board,"Yellow","Yellow")   [0.6]
    True

4. isTouching(board,"Orange","Orange")   [0.6]
    False

==

5. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark
    Blue"],["Teal","Purple","Gold"]]
    piece1="Pink"
    piece2="Yellow"

    isTouching(board,piece1,piece2)   [0.6]
    True

==

6. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark
    Blue"],["Teal","Purple","Gold"]]
    piece1="Orange"
    piece2="Purple"

    isTouching(board,piece1,piece2)   [0.6]
    True

==

7. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark
    Blue"],["Teal","Purple","Gold"]]
    piece1="Pink"
    piece2="Pink"

    isTouching(board,piece1,piece2)   [0.6]
    False

Question#3.

==

board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]

1. sameRow(board,"Yellow","Light Blue")   [0.25]
   True

2. sameRow(board,"Pink","Purple")   [0.25]
   False

==

board=[['Yellow','Yellow','DarkBlue'],['LightBlue','Purple','Gold'],['Orange','Pink','Orange']]

3. sameRow(board,"Yellow","DarkBlue")   [0.5]
   True

4. sameRow(board,"LightBlue","Pink")   [0.5]
   False

==

5. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark
   Blue"],["Teal","Purple","Gold"]]
   piece1="Green"
   piece2="Dark Blue"

   sameRow(board,piece1,piece2)   [0.5]
   True

==

6. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark
   Blue"],["Teal","Purple","Gold"]]
   piece1="Green"
   piece2="Teal"

   sameRow(board,piece1,piece2)   [0.5]
   False

==

7. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark
   Blue"],["Teal","Purple","Gold"]]
   piece1="Green"
   piece2="Gold"

   sameRow(board,piece1,piece2)   [0.5]
   False

Question#4.

===

board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]

1. sameColumn(board,"Pink","Teal")   [0.25]
   True

2. sameColumn(board,"Yellow","Gold")   [0.25]
   False

===

board=[['Yellow','Yellow','DarkBlue'],['LightBlue','Purple','Gold'],['Orange','Pink','Orange']]

3. sameColumn(board,"Yellow","Purple")   [0.5]
   True

4. sameColumn(board,"DarkBlue","Pink")   [0.5]
   False

===

5. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]]
   piece1="Orange"
   piece2="Yellow"

   sameColumn(board,piece1,piece2)   [0.5]
   True

===

6. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]]
   piece1="Teal"
   piece2="Gold"

   sameColumn(board,piece1,piece2)   [0.5]
   False

===

7. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]]
   piece1="Green"
   piece2="Gold"

   sameColumn(board,piece1,piece2)   [0.5]
   False

Question#5.

==
board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]

1. inRow(board,"top","Yellow",1)   [0.5]
   True
==
board=[['Yellow','Yellow','DarkBlue'],['LightBlue','Purple','Gold'],['Orange','Pink','Orange']]

2. inRow(board,"top","Yellow",2)   [0.5]
   True

3. inRow(board,"bottom","Pink",1)   [0.5]
   True
==
4. board=[["Pink","Yellow","Pink"],["Green","Pink","Dark Blue"],["Teal","Purple","Pink"]]
   piece1="Pink"
   num=2
   row="top"

   inRow(board,row,piece1,num)   [0.5]
   True
==
5. board=[["Pink","Yellow","Pink"],["Pink","Pink","Dark Blue"],["Teal","Purple","Pink"]]
   piece1="Pink"
   num=1
   row="middle"

   inRow(board,row,piece1,num)   [0.5]
   True
==
6. board=[["Pink","Yellow","Pink"],["Green","Pink","Dark Blue"],["Teal","Purple","Orange"]]
   piece1="Pink"
   num=1
   row="bottom"

   inRow(board,row,piece1,num)   [0.5]
   False

Question#6.
===
board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]

1. inColumn(board,"right","Gold",1)   [0.5]
   True
===
board=[['Yellow','Yellow','DarkBlue'],['LightBlue','Purple','Gold'],['Orange','Pink','Orange']]

2. inColumn(board,"left","LightBlue",1)   [0.5]
   True

3. inColumn(board,"right","Orange",1)   [0.5]
   True

===

4. board=[["Pink","Yellow","Pink"],["Green","Pink","Dark Blue"],["Teal","Purple","Pink"]]
   piece1="Pink"
   num=1
   row="left"

   inColumn(board,row,piece1,num)   [0.5]
   True

===

5. board=[["Pink","Yellow","Pink"],["Pink","Pink","Dark Blue"],["Teal","Purple","Pink"]]
   piece1="Pink"
   num=1
   row="right"

   inColumn(board,row,piece1,num)   [0.5]
   True

===

6. board=[["Pink","Yellow","Pink"],["Green","Pink","Dark Blue"],["Teal","Purple","Orange"]]
   piece1="Pink"
   num=2
   row="right"

   inColumn(board,row,piece1,num)   [0.5]
   False

Question#7.

==
board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]

1. isBetween(board,"Orange","Yellow","Purple")   [0.5]
    True

2. isBetween(board,"Green","Purple","Pink")   [0.5]
    False

==

board=[['Yellow','Yellow','DarkBlue'],['LightBlue','Purple','Gold'],['Orange','Pink','Orange']]

3. isBetween(board,"LightBlue","Yellow","Orange")   [0.6]
    True

4. isBetween(board,"Yellow","Yellow","DarkBlue")[0.6]
    True

==

5. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark
    Blue"],["Teal","Purple","Gold"]]
    piece1="Yellow"
    piece2="Pink"
    piece3="Light Blue"

    isBetween(board,piece1,piece2,piece3)   [0.6]
    True

==

6. board=[["Pink","Orange","Light Blue"],["Green","Orange","Dark
    Blue"],["Teal","Purple","Gold"]]
    piece1="Orange"
    piece2="Purple"
    piece3="Orange"

    isBetween(board,piece1,piece2,piece3)   [0.6]
    True

==

7. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]]
piece1="Orange"
piece2="Green"
piece3="Teal"

isBetween(board,piece1,piece2,piece3)   [0.6]
False

Question#8.

==

board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]

1. atPlace(board,"Orange", "middle") or atPlace(board,"Orange", "middle", "middle")
   True

2. atPlace(board, "Purple", "top", "left")   [0.3]
   False

3. atPlace(board,"Dark Blue","middle","right")   [0.3]
   True.

==

board=[['Yellow','Yellow','DarkBlue'],['LightBlue','Purple','Gold'],['Orange','Pink','Orange']]

4. atPlace(board,"Purple","middle","middle") or atPlace(board,"Purple","middle")
        [0.3]
   True

5. atPlace(board,"DarkBlue","top","right")   [0.3]
   True

6. atPlace(board,"Orange","bottom","left")   [0.3]
   True

==

7. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark
   Blue"],["Teal","Purple","Gold"]]
   piece1="Light Blue"
   row="top"
   col="right"

   atPlace(board,piece1,row,col)   [0.3]
   True

==

8. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]]
   piece1="Purple"
   row="middle"
   col="middle"

   atPlace(board,piece1,row,col)   [0.3]
   False

   ==

9. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]]
   piece1="Green"
   row="bottom"
   col="left"

   atPlace(board,piece1,row,col)   [0.3]
   False

   ==

10. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]]
    piece1="Purple"
    row="bottom"
    col="middle"

    atPlace(board,piece1,row,col)   [0.3]
    True

Question#9.

==

board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]

1. isTowards(board,"Teal","left","Gold")　　　　　[0.25]
   True

2. isTowards(board,"Purple","below","Yellow")　　　[0.25]
   True

3. isTowards(board,"Orange","right","Yellow")　　　[0.25]
   False

4. isTowards(board,"Orange","right","Gold")　　　　[0.25]
   False

==

board=[['Yellow','Yellow','DarkBlue'],['LightBlue','Purple','Gold'],['Orange','Pink','Orange']]

5. isTowards(board,"Yellow","above","Pink")　　　　[0.5]
   True

6. isTowards(board,"Orange","below","DarkBlue")　　[0.5]
   True

7. isTowards(board,"Orange","left","Orange")　　　　[0.5]
   True

8. isTowards(board,"Purple","right","LightBlue")　　[0.5]
   True

==

9. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]]
   piece1="Green"
   direction="left"
   piece2="Dark Blue"

   isTowards(board,piece1,direction,piece2)　　　　[0.5]
   True

==

10. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]]
    piece1="LightBlue"
    direction="right"
    piece2="Yellow"

    isTowards(board,piece1,direction,piece2)   [0.5]
    False

==

11. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]]
    piece1="Teal"
    direction="above"
    piece2="Green"

    isTowards(board,piece1,direction,piece2)   [0.5]
    False

==

12. board=[["Pink","Yellow","Light Blue"],["Green","Orange","Dark Blue"],["Teal","Purple","Gold"]]
    piece1="Green"
    direction="below"
    piece2="Pink"

    isTowards(board,piece1,direction,piece2)   [0.5]
    True

Question#10.

==

1. Test case: not (Bonus) isTouching: [1]
    board = [['LightBlue', 'Yellow', 'Gold'], ['Orange', 'Orange', 'Orange'], ['LightBlue', 'Purple', 'Purple']]
    piece1 = "Orange"
    piece2 = "Orange"
    flag = False
    print(isTouching(board,piece1,piece2,flag))
    False

==

2. Test case: not (Bonus) isTowards: [1]
    board = [["Pink", "Yellow", "Light Blue"], ["Green", "Orange", "Dark Blue"], ["Teal", "Purple", "Gold"]]
    piece1 = "Green"
    direction = "below"
    piece2 = "Pink"
    print(isTowards(board,piece1,direction,piece2,False))
    False

==

3. Test case: not (Bonus) inRow/inCol: [1]
    board = [["Pink", "Yellow", "Pink"], ["Green", "Pink", "Dark Blue"], ["Teal", "Purple", "Pink"]]
    piece1 = "Green"
    num = 1
    row = "right"
    print(inColumn(board,row,piece1,num,False))
    True

==

4. Test case: not (Bonus) isBetween: [1]
    board = [["Pink", "Yellow", "Light Blue"], ["Green", "Yellow", "Dark Blue"], ["Teal", "Purple", "Gold"]]
    piece1 = "Yellow"
    piece2 = "Yellow"
    piece3 = "Light Blue"
    print(isBetween(board,piece1,piece2,piece3,False))
    True

==

5. Test case: not (Bonus) checkRules 2:   [3]
    board = [['Orange', 'Gold', 'Orange'], ['Yellow', 'Teal', 'Yellow'], ['Orange', 'Yellow', 'Teal']]
    rules = ['touch Orange Orange not', 'touch Yellow Yellow not', 'touch Teal Teal not', 'touch
    Teal Orange not',
         'row Yellow 1 top not', 'col Teal 1 left not', 'towards Orange below Teal not']
    print(checkRules(board, rules))
    True
==

6. Test case: not (Bonus) checkRules 1:   [3]
    board = [['Green', 'Pink', 'Yellow'], ['LightBlue', 'Gold', 'Purple'], ['Teal', 'Orange', 'DarkBlue']]
    rules = ['place Pink top.middle', 'towards Green left Yellow', 'touch Green Yellow not',
    'towards LightBlue left Gold',
         'touch LightBlue Gold', 'towards Orange right Teal', 'touch Orange Teal', 'towards
    Purple right LightBlue',
         'touch Purple LightBlue not', 'touch DarkBlue Orange']
    print(checkRules(board, rules))
    True

Question#11.

===

1. getColors("Yellow Yellow DarkBlue LightBlue Purple Gold Orange Pink Orange\n")   [0.25]
   ['Yellow', 'Yellow', 'DarkBlue', 'LightBlue', 'Purple', 'Gold', 'Orange', 'Pink', 'Orange']

===

2. getColors("Pink Pink Pink Green Green DarkBlue Teal Teal Gold\n")   [0.25]
   ['Pink', 'Pink', 'Pink', 'Green', 'Green', 'DarkBlue', 'Teal', 'Teal', 'Gold']

===

3. getColors("Pink Yellow LightBlue Green Orange DarkBlue Teal Purple Gold\n")   [0.25]
   ['Pink', 'Yellow', 'LightBlue', 'Green', 'Orange', 'DarkBlue', 'Teal', 'Purple', 'Gold']

===

4. getColors("Yellow LightBlue LightBlue Orange Orange Orange Purple Purple Gold\n") [0.25]
   ['Yellow', 'LightBlue', 'LightBlue', 'Orange', 'Orange', ' Orange', 'Purple', 'Purple', 'Gold']

===

5. getColors("Pink Pink LightBlue Green DarkBlue DarkBlue Teal Teal Gold\n")   [0.25]
   ['Pink', 'Pink', 'LightBlue', 'Green', 'DarkBlue', 'DarkBlue', 'Teal', 'Teal', 'Gold']

===

6. getColors("Pink LightBlue LightBlue Green Orange Orange Teal Grey Gold\n") [0.25]
   ['Pink', 'LightBlue', 'LightBlue', 'Green', 'Orange', 'Orange', 'Teal', 'Grey', 'Gold']

===

7. getColors("Pink Pink Yellow Green Green Orange Teal Purple Gold\n")   [0.25]
   ['Pink', 'Pink', 'Yellow', 'Green', 'Green', 'Orange', 'Teal', 'Purple', 'Gold']

===

8. col="Yellow Yellow DarkBlue LightBlue Purple Gold Orange Pink Orange"   [0.25]
   getColors(col)
   ['Yellow', 'Yellow', 'DarkBlue', 'LightBlue', 'Purple', 'Gold', 'Orange', 'Pink', 'Orange']

Question#12.
==

1. rule="col Green 2 left\nrow Teal 2 bottom\nrow LightBlue 3 top\ncol Orange 1 right"
   getRules(rule)   [1]

   ['col Green 2 left', 'row Teal 2 bottom', 'row LightBlue 3 top', 'col Orange 1 right']

==

2. rule="touch Yellow Yellow\ntouch Orange Orange not\n\nrow Pink 1 bottom\nsamerow Yellow DarkBlue\n\nsamerow LightBlue Pink not\nbetween LightBlue Yellow Orange\n\nbetween Yellow Yellow DarkBlue\ntowards Orange below DarkBlue\n\ntowards Orange left Orange\ntowards Purple right LightBlue"
   getRules(rule)   [2]

   ['touch Yellow Yellow', 'touch Orange Orange not', 'row Pink 1 bottom', 'samerow Yellow DarkBlue', 'samerow LightBlue Pink not', 'between LightBlue Yellow Orange', 'between Yellow Yellow DarkBlue', 'towards Orange below DarkBlue', 'towards Orange left Orange', 'towards Purple right LightBlue']

Question#13.

==

1. inputFromFile("board1.txt")   [0.75]
   (['LightBlue', 'LightBlue', 'LightBlue', 'Green', 'Green', 'Orange', 'Teal', 'Teal', 'Gold'], ['col Green 2 left', 'row Teal 2 bottom', 'row LightBlue 3 top', 'col Orange 1 right'])

==

2. inputFromFile("board2.txt")   [0.5]
   (['Yellow', 'LightBlue', 'LightBlue', 'Orange', 'Orange', 'Orange', 'Purple', 'Purple', 'Gold'], ['place Yellow top.middle', 'row Orange 3 middle', 'touch Purple Purple', 'col LightBlue 2 left', 'touch LightBlue LightBlue not'])

==

3. inputFromFile("board4.txt")   [0.5]
   (['Pink', 'Pink', 'Pink', 'Green', 'Green', 'DarkBlue', 'Teal', 'Teal', 'Gold'], ['row Teal 1 top', 'between DarkBlue Teal Green', 'row Pink 3 bottom', 'col Green 2 right', 'touch Teal Teal', 'touch DarkBlue Pink not'])

==

4. inputFromFile("board5.txt")   [0.5]
   (['Pink', 'Pink', 'LightBlue', 'Green', 'DarkBlue', 'DarkBlue', 'Teal', 'Teal', 'Gold'], ['row Teal 2 bottom', 'row Pink 1 top', 'col LightBlue 1 right', 'between Green DarkBlue DarkBlue', 'between Green Pink Pink'])

==

5. inputFromFile("board7.txt")   [0.5]
   (['Pink', 'Yellow', 'LightBlue', 'Green', 'Orange', 'DarkBlue', 'Teal', 'Purple', 'Gold'], ['place Pink top.middle', 'towards Green left Yellow', 'touch Green Yellow not', 'towards LightBlue left Gold', 'touch LightBlue Gold', 'towards Orange right Teal', 'touch Orange Teal', 'towards Purple right LightBlue', 'touch Purple LightBlue not', 'touch DarkBlue Orange'])

==

6. inputFromFile("board9.txt")   [0.5]
   (['Pink', 'LightBlue', 'LightBlue', 'Green', 'Orange', 'Orange', 'Teal', 'Grey', 'Gold'], ['between Grey LightBlue LightBlue', 'towards Orange above Orange', 'touch Orange Orange', 'towards Green left Pink', 'touch Green Pink not', 'towards Teal right Orange', 'touch Teal Orange', 'towards Pink below LightBlue', 'touch Pink LightBlue', 'touch Orange LightBlue not'])

==

7. inputFromFile("board10.txt")   [0.5]
(['Pink', 'Pink', 'Yellow', 'Green', 'Green', 'Orange', 'Teal', 'Purple', 'Gold'], ['towards Green left Orange', 'touch Green Orange', 'towards Pink left Orange', 'touch Pink Orange not', 'towards Green right Yellow', 'touch Green Yellow', 'towards Purple left Green', 'touch Purple Green not', 'towards Orange above Green', 'place Pink middle', 'touch Pink Green', 'towards Teal below Orange', 'touch Teal Orange'])

==

8. inputFromFile("board25.txt")   [0.5]
(['Yellow', 'Yellow', 'Yellow', 'Orange', 'Orange', 'Orange', 'Teal', 'Teal', 'Gold'], ['touch Orange Orange not', 'touch Yellow Yellow not', 'touch Teal Teal not', 'touch Teal Orange not', 'row Yellow 1 top not', 'col Teal 1 left not', 'towards Orange below Teal not'])

==

9. inputFromFile("sample.txt")   [0.75]
(['Yellow', 'Yellow', 'LightBlue', 'Purple', 'Gold', 'Orange', 'Pink', 'Orange', 'DarkBlue'], ['touch Yellow Yellow', 'touch Orange Orange not', 'row Pink 1 bottom', 'samerow Yellow DarkBlue', 'samerow LightBlue Pink not', 'between LightBlue Yellow Orange', 'between Yellow Yellow DarkBlue', 'towards Orange below DarkBlue', 'towards Orange left Orange', 'towards Purple right LightBlue'])

Question#14.

===

1. x=[['Yellow','DarkBlue'],['LightBlue','Purple','Gold'],['Yellow','Orange','Pink','Orange']]
    y=['Yellow', 'Yellow', 'LightBlue', 'Purple', 'Gold', 'Orange', 'Pink', 'Orange', 'DarkBlue']

    print(isValidBoard(x,y))   [2]
    False

===

2. x = [['Yellow', 'Yellow', 'DarkBlue'], ['LightBlue', 'Purple', 'Gold'], ['Orange', 'Pink', 'Orange']]
    y = ['Yellow', 'Yellow', 'LightBlue', 'Purple', 'Gold', 'Orange', 'Pink', 'Orange', 'DarkBlue']

    print(isValidBoard(x, y))   [2]
    True

Question#15.

==

1. board=[['LightBlue', 'LightBlue', 'LightBlue'], ['Green', 'Gold', 'Orange'], ['Green', 'Teal', 'Teal']]
   rules=['col Green 2 left', 'row Teal 2 bottom', 'row LightBlue 3 top', 'col Orange 1 right']

   print(checkRules(board,rules))   [2]
   True

==

2. board = [['Yellow', 'Yellow', 'DarkBlue'], ['LightBlue', 'Purple', 'Gold'], ['Orange', 'Pink', 'Orange']]
   rules = ['samerow Yellow DarkBlue', 'towards Orange below DarkBlue', 'touch Yellow Orange']

   print(checkRules(board,rules))   [2]
   False

==

3. board = [['LightBlue', 'LightBlue', 'LightBlue'], ['Green', 'Gold', 'Orange'], ['Green', 'Teal', 'Teal']]
   rules = ['place Pink top.middle', 'towards Green left Yellow', 'touch Green Yellow not', 'towards LightBlue left Gold','touch LightBlue Gold', 'towards Orange right Teal', 'touch Orange Teal', 'towards Purple right LightBlue','touch Purple LightBlue not', 'touch DarkBlue Orange']

   print(checkRules(board,rules))   [2]
   False

==

4. board = [['LightBlue', 'Yellow', 'Gold'], ['Orange', 'Orange', 'Orange'], ['LightBlue', 'Purple', 'Purple']]
   rules = ['place Yellow top.middle', 'row Orange 3 middle', 'touch Purple Purple', 'col LightBlue 2 left','touch LightBlue LightBlue not']

   print(checkRules(board,rules))   [2]
   True

==

5. board = [['Yellow', 'Yellow', 'DarkBlue'], ['LightBlue', 'Purple', 'Gold'], ['Orange', 'Pink', 'Orange']]
   rules = ['touch Yellow Yellow', 'row Pink 1 bottom', 'samerow Yellow DarkBlue', 'samerow LightBlue Pink not','between LightBlue Yellow Orange', 'between Yellow Yellow DarkBlue', 'towards Orange below DarkBlue','towards Orange left Orange', 'towards Purple right LightBlue', 'samecol Yellow Purple']

   print(checkRules(board,rules))   [2]
   True

Question#17.

==

1. fname = "board1.txt"
   print(GameSolver(fname))   [1.5]
   [['LightBlue', 'LightBlue', 'LightBlue'], ['Green', 'Gold', 'Orange'], ['Green', 'Teal', 'Teal']]

==

2. fname = "board2.txt"
   print(GameSolver(fname))   [1.5]
   [['LightBlue', 'Yellow', 'Gold'], ['Orange', 'Orange', 'Orange'], ['LightBlue', 'Purple', 'Purple']]

==

3. fname = "board4.txt"
   print(GameSolver(fname))   [1.5]
   [['Teal', 'DarkBlue', 'Green'], ['Teal', 'Gold', 'Green'], ['Pink', 'Pink', 'Pink']]

==

4. fname = "board5.txt"
   print(GameSolver(fname))   [1.5]
   [['Gold', 'Pink', 'LightBlue'], ['DarkBlue', 'Green', 'DarkBlue'], ['Teal', 'Pink', 'Teal']]

==

5. fname = "board7.txt"
   print(GameSolver(fname))   [1.5]
   [['Green', 'Pink', 'Yellow'], ['LightBlue', 'Gold', 'Purple'], ['Teal', 'Orange', 'DarkBlue']]

==

6. fname = "board9.txt"
   print(GameSolver(fname))   [1.5]
   [['LightBlue', 'Grey', 'LightBlue'], ['Green', 'Orange', 'Pink'], ['Gold', 'Orange', 'Teal']]

==

7. fname = "board10.txt"
   print(GameSolver(fname))   [2]
   [['Pink', 'Green', 'Orange'], ['Gold', 'Pink', 'Teal'], ['Purple', 'Yellow', 'Green']]

==

8. fname = "board25.txt"
   print(GameSolver(fname))   [1.5]
[['Orange', 'Gold', 'Orange'], ['Yellow', 'Teal', 'Yellow'], ['Orange', 'Yellow', 'Teal']]

==

9. fname = "sample.txt"
   print(GameSolver(fname))   [2.5]
   [['Yellow', 'Yellow', 'DarkBlue'], ['LightBlue', 'Purple', 'Gold'], ['Orange', 'Pink', 'Orange']]