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Ans to the ques no. 1

```
gtp = [
      (1, 1, 1),
      (2, 3, 1),
      (3, 1, 2)
      (4, 3, 2)
      (5, 1, 3)
      (6, 2, 3)
      (7, 2, 2)
      (8, 3, 3)
      ]

gblnk = (2, 1)

btp = [
      [1, 1, 1),
      (2, 2, 1),
      (3, 3, 1),
      (4, 1, 2),
      (5, 2, 2),
```

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```
(6, 3, 2),
(7, 1, 3),
(8, 2, 3)
]

blnk = (3, 3)

i = 0
h = 0
while (i <= 7):
    if ((gtp[i][1] != tp[i][1]
        or (gtp[i][2] != tp[i][2])):
            h = h + 1
        i = i + 1
print ("Heuristic 1 : ", h)
```

Ans to the ques no. 2

```
neighbor(a, d, 7).
neighbor(d, c, 2).
neighbor(c, e, 3).
neighbor(e, i, 4).
neighbor(e, h, 3).
neighbor(h, g, 6).
neighbor(g, f, 4).
neighbor(g, b, 1).

path(X, Y, D):-
    neighbor(X, Y, D), !.

path(X, Y, D):-
    neighbor(X, Z, D1), path(Z, Y, D2),
                    D is D1+D2.
```

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```
mainfunc:-
    write('start Node: '), read(X),
    write('End Node: '), read(Y),
    write('Distance: '), path(X,Y,D),
        write(D), tab(2), fail.
```