

General steps.

hashmap: key: ID value
value: distance

1. declare where knight can jump in global var: dx, dy
2. add the source to the queue, and add 2D to 1D value to the hash map.

3. regular BFS, but get the 1D value

4. check if the polled value is the destination **Exit**

5. loop through 8 direction, then get the possible newX and newY.

6. check if valid $\left\{ \begin{array}{l} 1. \text{out of bound} \\ 2. \text{if the grid}[x][y] == 1 \text{ occupied?} \end{array} \right.$

7. Convert newX and Y to 1D value
then check if map has the 1D value.

8. add to queue and add to map. \rightarrow

update distance.
by oldPointKey + 1.