

# Final Project: Minesweeper

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*(100 pts, with opportunities for E.C.) Due May 6*

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## Game Description

For this project you will be recreating a version of the game MineSweeper. In general, Minesweeper is played with a board of squares. When you choose a square, you will be told how many bombs can be found in the 8 cells immediately surrounding that square you selected. So, for instance, in square located at row 3 and column 4, if there is a bomb at row 2, column 4 and row 4, column 5, then when you chose

the square you'd see the number 2. When you think you know where a bomb is, you mark the square with a flag. You continue to choose squares and plant flags until either you choose a square with a bomb, in which case you blow up and die, or you have flags planted for all possible bombs, at which point you check your board to see if you were correct. Google minesweeper for more details on how to play.

There are 3 versions of this project: *Minesweeper Standard*, *Minesweeper Pro*, and *Minesweeper with Turtle Graphical User Interface*

If you complete:

- Minesweeper Standard, it is worth 85/100 pts
- Minesweeper Pro, it is worth an additional 20 pts
- Minesweeper with Turtle GUI (which is challenging!) it is worth an additional 35 pts.  
(See video on website for example of the gui, helpful hints to follow)

## Mine Sweeper Standard

*(See the end of this file for transcripts of my version of the game)*

### Version 1:

*This is the standard version of MineSweeper that you are familiar with. Most of the instructions are for this version, and you may complete this version, and then modify it later to be compliant with the next level up. If you choose to tackle the pro version of MineSweeper, instructions can be found on page 9.*

This project is great practice with matrices, or lists of lists.

### Matrices:

In our version, we'll be creating two matrices (lists of lists). The size of the matrices will be dependent on whether the user chooses one of 3 options:

- the 'E' (easy) board, which will be 8x8, with 9 bombs randomly placed on the board),
- the 'M'(medium) board, which will be 14x14, with 15 bombs randomly placed on the board,
- or the 'H' (hard) board, which will be 20x20, with 21 bombs randomly placed on the board.

Both matrices will be the same size. The first matrix will be the one with the bombs and the numbers, telling how many bombs are near each square. This board will be hidden (until you finish the game). The second board will be the board the user uses to play the game. It will originally be filled with "-" for each square, and, as the user chooses a square, the contents of the hidden board will be revealed for that square.

### Choosing a square on the board (matrix)

To choose a square, the user will first enter the x, and then the y coordinate of the square. At that point the contents of the hidden board will be moved to the user's board. So, for instance, if there are 3 bombs immediately surrounding the chosen square, the 3 from the hidden board will replace the corresponding '-'

' on the user's board. If the user chooses a square in which there's a bomb, the user will immediately get a message, "You hit a big bomb. Sorry, you die!" and the game will stop.

If the user chooses either an x or a y that is out of range, they should be told that the value is out of range, and while it is out of range, asked to reenter a new value. If the user chooses an x,y pair of a square that they've already chosen, they should be told that they've already chosen that square and to try again.

Users also have a number of other options.

### Bomb flags

They can choose to place a flag on the user's board in a location where they think a bomb is. They can choose to remove a flag from their board. They can choose to check how many more bombs they need to find (based on the number of flags they've planted), they can choose to reprint the user board as it currently stands, and they can choose to quit.

Once the user has planted the number of flags equal to the number of bombs, the user will be asked if they want to check to see if they are correct. If they choose yes, then the user's board and the hidden board should be checked to see whether each flag corresponds to a bomb on the hidden board.

Note: you may use the code outline I've provided below:

```
from random import *
mat1 = []
mat2 = []
```

#### *def makemat(x): #6 pts*

```
#This function takes as an input parameter a number and modifies both mat1 and mat 2
so that they are lists of lists (matrices). Mat1 should be a list, with x lists in
it. Each of the lists in the list should consist of x 0's. Mat2 should be a list,
with x lists in it. Each of the lists in the list should consist of x '-s. It
returns nothing. (Note that there is a similar function in the powerpoints and video
def makemat(x):
```

#### *def printmat(mat): #6 pts*

```
#This function takes as an input parameter a matrix (either mat1 or mat2 in this case)
and prints it out. Note that each row should be on a separate line, but the row
itself should be printed on one line, using end = " ". Another note - to make it look
nice and neat I used the "\t" to print out a tab. So, for instance, my print
statement might look like this:
```

```
    print(str(mat[x][y]) + "\t", end="")
It returns nothing.
```

#### *def addmines(z): #8 pts*

```
#This function takes as an input parameter a number z. It then places z bombs on the
first matrix (mat1) at random locations, making sure that you don't place two bombs in
the same place. It returns nothing.
```

### *def addscores(): #15 pts*

#This function takes no input parameters and returns nothing. It takes the hidden board (mat1) after bombs have been placed on it. For each square on the board that is not a bomb, it then counts the number of bombs immediately surrounding the square (including diagonals). The square on the board (mat1) then becomes that number. Note: this function may be a bit challenging because of the edges of the matrix.

### *def getsquare(): #8 pts*

#This function takes no input parameters and returns a Boolean value, depending on whether the user chose a square with a bomb on it (if they chose a bomb, the value returned should be false). The function should use the input function to ask the user to input an x coordinate and then a y coordinate. It should check to make sure that the x is in range (not some square off the board), and, if not, the user should get a message asking them to input a valid x. It should continue to do this until the user enters an x value on the board. It should do the same for the y value. Once the user has successfully entered a valid x value and a y value, you should check to see if the user has already chosen that square. If they haven't, then the value of the hidden board (mat1) at that square should be revealed by placing it on the user's board (mat2) in the correct location. If the user chose a bomb, they should get an appropriate message saying they die, and displaying the hidden board, along with returning false. Otherwise, the newly updated user's board should be displayed and true should be returned.

### *def addflag(AddorRemove): #7 pts*

#This function takes as an input parameter a Boolean value, based on whether it should add or remove a flag from the user's board. It should ask the user to input an x and a y value to choose a square, and, as in the getsquare function, check to make sure the x and y values are in range. Once the user has input valid x and y values, if AddorRemove is true, add a 'f' (flag) to the user's board (mat2) at the appropriate location and 1 is returned. If AddorRemove is false, the appropriate location on the user's board is replaced with '-' and -1 is returned.

### *def ckflags(): #8 pts*

#This function takes no input parameters and returns False (the Boolean value) because once you've checked the flags, you're done the game. This function checks to see whether all the flags placed on the user's board correspond to the bombs on the hidden board and no more. If they do, the user should get a message, "Congratulations! You got all the bombs!". If not, the user should get a message, "Sorry, but you got x bombs wrong", with x being the number of bombs wrong. In either case, it will print out the hidden board and return false.

### *def playgame(totalbombs):*

```
#This function is in essence the user interface.
    alive = True
    foundbombs = 0
    while (alive):
        x = input("""
            Input:\n
            \t'a' Choose square
            \t'b' Add flag
            \t'c' Remove flag
            \t'd' See board so far
```

```

        \t'e' Number of bombs left:
        \t'f' Quit
        """)
if x == 'a':
    alive = getsquare()
elif x == 'b':
    foundbombs += addflag(True)
    if foundbombs == totalbombs:
        x = input("Want to check if you are right? (yes or no)")
        if x.upper == "NO":
            print("Then you must remove a flag.")
            foundbombs += addflag(False)
        else:
            alive = ckflags()
elif x == 'c':
    foundbombs += addflag(False)
elif x == 'd':
    printmat(mat2)
elif x == 'e':
    print ("Your bombs left to find are: " + str(totalbombs - foundbombs))
else:
    print("Game over!")
    alive = False

```

```
def main():
```

```
#This is the main function, where the game starts from.
```

```
difficulty=input("Do you want an easy ('E'), medium ('M'), or hard ('H') board? ")
```

```
if difficulty.upper() == 'E':
```

```
    sizeb = 8
```

```
    totalbombs = 9
```

```
elif difficulty.upper() == 'M':
```

```
    sizeb = 14
```

```
    totalbombs = 15
```

```
elif difficulty.upper() == 'H':
```

```
    sizeb = 20
```

```
    totalbombs = 21
```

```
makemat(sizeb)
```

```
addmines(totalbombs)
```

```
# printmat(mat1)      Used for diagnostics
```

```
printmat(mat2)
```

```
addscores()
```

```
# printmat(mat1)      Used for diagnostics
```

```
playgame(totalbombs)
```

```
main()
```

*#(25 pts)Getting it all to work together:*

## MineSweeper Pro (+ 20 pts):

*Note: this is a more advanced version of MineSweeper. A transcript of playing the game can be found below the transcript of the standard game (On page 28).*

### Gold and Armor

For this version, you must add not only bombs, but also Gold and Armor to the matrix. You will add the same number of gold, armor, and bombs to the matrix. So, for instance, if you choose the easy version, you will add 9 bombs, armor, and gold nuggets to the board. The Goal is to find all the bombs and to gather enough gold to buy your way off the board.

You must select a square. The square may contain Gold ('G'), Armor ('A'), or a Bomb ('B'). If not, it will contain a set of numbers, with the first being the number of bombs, the second being the number of gold squares, and the third being the number of armor squares surrounding that square.

So, for instance, if a Square holds the number 310 that means it has 3 armors in surrounding squares, 1 gold in surrounding squares, and no bombs in any of the surrounding squares.

### Armor

When you land on an Armor, your Armor amount increases by a random amount between 1 and 30 (including 30). If you land on a Bomb, the bomb may have destructive power anywhere between 10 and 50. If you are lucky enough to have more Armor than bomb strength, you will live, but your Armor will be deleted by the amount of the bomb. If you don't, you die and the game ends. If you land on a bomb, and survive, you may gain 20 gold points. (or you may not - it's random too.)

### Winning

Finally, at any point, you can check to see if you've won. You win when you've identified all the bombs (either by flagging them or by detonating them) and you have collected Gold nuggets that equal the winning amount (a random number between 100 and 200).

As you play, you have a number of options, including seeing the score of a particular square. This is especially useful with squares with gold, bombs, or armor in them.

For this project, you may wish to add

*def getScore():*

#a function that uses the input function twice to ask the user for an x and then a y value, and then calculates the score (as described above) for that square. So you'd add 100 for each Armor in surrounding squares, you'd add 10 for each gold in surrounding squares, and you'd add 1 for each bomb in surrounding squares. This function then prints out that number and returns nothing.

*def countbombs()*

I also added a countbombs function that counted the amount of bombs (both flagged and detonated) on the board because I used it to check the winning status of the board.

You may also wish to modify the following functions:

Perhaps change function `addmines()` to be:

```
def addstufftoboard(z,t):
```

#where now `t` is the type of thing you are adding to the board and `z` is the number of times to add it to the board.

```
def addscores():
```

#so that this function not only calculates the number of bombs in surrounding squares (calculated by adding 1 for each bomb) but also the number of gold nuggets (calculated by adding 10 for each gold to the total score) and the number of Armor (calculated by adding 100 for each armor to the total score).

```
def getsquare(ls):
```

#now this function takes as input a list of 2 values: the first being the armor score and the second being the gold score. Now in this function, you will have to take into account when you land on a bomb, you must generate a random number to represent the amount of power the bomb has (between 10 and 50) and checks to see if the armor is great enough to withstand the bomb (and, if so, it should reduce the armor accordingly). It should also check to see if the gold should increase by 20 (it's random whether a bomb has gold under it or not, but the amount is consistently 20). The function should also check to see if the square is Gold, and, if so, generate a random number between 10 and 30 and increase the gold amount accordingly, and it should check to see if it is an Armor square, and, if so, increase the armor by a random number between 10 and 30. It should print out these new amounts before printing out the updated matrix.

And then I modified the following functions as follows:

```
def printrules():
```

```
print("""The Goal is to find all the bombs and to gather
enough gold to buy your way off the board. \n
You must select a square. The square may contain
Gold ('G'), Armor ('A'), or a Bomb ('B'). If not,
it will contain a set of numbers, with the first
being the number of bombs, the second being the
number of gold squares, and the third being the
number of armor squares surrounding that square. \n
So, for instance, if a Square holds the number 310
that means it has 3 armors in surrounding squares,
1 gold in surrounding squares, and no bombs in any
of the surrounding squares.\n
When you land on an Armor, your Armor amount increases
by a random amount between 10 and 30 (including 30).
If you land on a Bomb, the bomb may have destructive
power anywhere between 10 and 50. If you are lucky
enough to have more Armor than bomb strength, you will
live, but your Armor will be deleted by the amount of
the bomb. If you don't, you die and the game ends.
If you land on a bomb, and survive, you may gain 20
gold points. (or you may not - it's random too.)
Finally, at any point, you can check to see if you've
won. You win when you've identified all the bombs
(either by flagging them or by detonating them)and
you have collected over 150 Gold nuggets.\n
As you play, you have a number of options, includng
```

seeing the score of a particular square. This is especially useful with squares with gold, bombs, or armor in them.""")

*def playgame(totalbombs,TotalGold):*

```
    alive = True
    foundbombs = 0
    Ac = [0,0]
    while (alive):
        x = input("""
            Input:\n
            \t'a' Choose square
            \t'b' Add flag
            \t'c' Remove flag
            \t'd' See board so far
            \t'e' Number of bombs left:
            \t'f' See Armor Score
            \t'g' See Amount of Gold:
            \t'h' Get Score for Square:
            \t'i' See Rules of Game:
            \t'q' Quit
            """)
        if x == 'a':
            alive = getsquare(Ac)
        elif x == 'b':
            addflag(True)
            foundbombs = countbombs()
            if foundbombs == totalbombs:
                x = input("Want to see if you win?")
                if x.upper == "YES":
                    x = ckflags()
                    if (x and (Ac[1] - TotalGold) >= 0):
                        print("You win! Congratulations!")
                    elif x:
                        print("Sorry, not enough gold with " + str(Ac[1]))
                    else:
                        print("You lose")
                print("Game over!")
                alive = False
        elif x == 'c':
            addflag(False)
            foundbombs = countbombs()
        elif x == 'd':
            printmat(mat2)
        elif x == 'e':
            print ("Your bombs left to find are: " + str(totalbombs - foundbombs))
        elif x == 'f':
            print ("Your Armor is: " + str(Ac[0]))
        elif x == 'g':
            print ("Your Gold is: " + str(Ac[1]), end = " ")
            print("You still need: " + str(TotalGold - Ac[1]))
        elif x == 'h':
            getScore()
        elif x == 'i':
            printrules()
        else:
            foundbombs = countbombs()
            if foundbombs == totalbombs:
                x = ckflags()
                if (x and (Ac[1] - TotalGold) >= 0):
```

```

        print("You win! Congratulations!")
    elif x:
        print("Sorry, not enough gold with " + str(Ac[1]))
    else:
        print("You lose")
print("Game over!")
alive = False
print()

```

### *def main():*

```

difficulty = input("Do you want an easy ('E'), medium ('M'), or hard ('H') board? ")
if difficulty.upper() == 'E':
    sizeb = 8
    totalbombs = 9
elif difficulty.upper() == 'M':
    sizeb = 14
    totalbombs = 17
elif difficulty.upper() == 'H':
    sizeb = 20
    totalbombs = 26
makemat(sizeb)
addstufftoboard(totalbombs, 'B')
addstufftoboard(totalbombs, 'A')
addstufftoboard(totalbombs, 'G')
TotalGold = randrange(100,200)

printmat(mat1)
printmat(mat2)
addscores()
printmat(mat1)
playgame(totalbombs, TotalGold)

```

main()

## Minesweeper with GUI (+ up to 35 pts):

Note: This is definitely challenging – you can play with this to personalize it the way you want. On my website I've included a video of my GUI

## Output

### Transcript of playing my Minesweeper (standard) game:

Do you want an easy ('E'), medium ('M'), or hard ('H') board? E

	0	1	2	3	4	5	6	7
0	0	0	0	0	0	0	b	0
1	b	0	0	0	0	0	0	0
2	0	b	0	0	0	0	0	0
3	0	b	0	0	0	0	0	0
4	0	0	0	0	b	0	0	0

5	0	0	0	0	b	0	0	0
6	0	0	b	0	0	0	0	0
7	0	0	0	0	0	0	b	0
	0	1	2	3	4	5	6	7

0	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	b	b	1
1	b	2	1	0	1	2	2	1
2	3	b	2	0	0	0	0	0
3	2	b	2	1	1	1	0	0
4	1	1	1	2	b	2	0	0
5	0	1	1	3	b	2	0	0
6	0	1	b	2	1	2	1	1
7	0	1	1	1	0	1	b	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 0

Input y: 9

9out of bounds. Input y: 0

	0	1	2	3	4	5	6	7
0	1	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 7

Input y: 7

	0	1	2	3	4	5	6	7
0	1	-	-	-	-	-	-	-

```

1 - - - - - - - -
2 - - - - - - - -
3 - - - - - - - -
4 - - - - - - - -
5 - - - - - - - -
6 - - - - - - - -
7 - - - - - - - 1

```

Input:

```

'a' Choose square
'b' Add flag
'c' Remove flag
'd' See board so far
'e' Number of bombs left:
'f' Quit

```

a

Input x: 7

Input y: 0

```

0 0 1 2 3 4 5 6 7
0 1 - - - - - -
1 - - - - - - -
2 - - - - - - -
3 - - - - - - -
4 - - - - - - -
5 - - - - - - -
6 - - - - - - -
7 0 - - - - - 1

```

Input:

```

'a' Choose square
'b' Add flag
'c' Remove flag
'd' See board so far
'e' Number of bombs left:
'f' Quit

```

a

Input x: 6

Input y: 7

```

0 0 1 2 3 4 5 6 7
0 1 - - - - - -
1 - - - - - - -
2 - - - - - - -
3 - - - - - - -
4 - - - - - - -
5 - - - - - - -
6 - - - - - 1
7 0 - - - - - 1

```

Input:

```

'a' Choose square
'b' Add flag
'c' Remove flag
'd' See board so far
'e' Number of bombs left:
'f' Quit

```

```

a
Input x: 6
Input y: 0
  0   1   2   3   4   5   6   7
0   1   -   -   -   -   -   -
1   -   -   -   -   -   -   -   -
2   -   -   -   -   -   -   -   -
3   -   -   -   -   -   -   -   -
4   -   -   -   -   -   -   -   -
5   -   -   -   -   -   -   -   -
6   0   -   -   -   -   -   -   1
7   0   -   -   -   -   -   -   1

```

Input:

```

'a' Choose square
'b' Add flag
'c' Remove flag
'd' See board so far
'e' Number of bombs left:
'f' Quit

```

```

a
Input x: 5
Input y: 0
  0   1   2   3   4   5   6   7
0   1   -   -   -   -   -   -
1   -   -   -   -   -   -   -   -
2   -   -   -   -   -   -   -   -
3   -   -   -   -   -   -   -   -
4   -   -   -   -   -   -   -   -
5   0   -   -   -   -   -   -   -
6   0   -   -   -   -   -   -   1
7   0   -   -   -   -   -   -   1

```

Input:

```

'a' Choose square
'b' Add flag
'c' Remove flag
'd' See board so far
'e' Number of bombs left:
'f' Quit

```

```

a
Input x: 4
Input y: 0
  0   1   2   3   4   5   6   7
0   1   -   -   -   -   -   -
1   -   -   -   -   -   -   -   -
2   -   -   -   -   -   -   -   -
3   -   -   -   -   -   -   -   -
4   1   -   -   -   -   -   -   -
5   0   -   -   -   -   -   -   -
6   0   -   -   -   -   -   -   1
7   0   -   -   -   -   -   -   1

```

Input:

```

'a' Choose square

```

'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' Quit

a  
 Input x: 7  
 Input y: 1

	0	1	2	3	4	5	6	7
0	1	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	-	-	-	-	-	-	-
5	0	-	-	-	-	-	-	-
6	0	-	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' Quit

a  
 Input x: 6  
 Input y: 1

	0	1	2	3	4	5	6	7
0	1	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	-	-	-	-	-	-	-
5	0	-	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' Quit

a  
 Input x: 5  
 Input y: 1

	0	1	2	3	4	5	6	7
0	1	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	-	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1

7 0 1 - - - - - 1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 4

Input y: 1

	0	1	2	3	4	5	6	7
0	1	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 0

Input y: 7

	0	1	2	3	4	5	6	7
0	1	-	-	-	-	-	-	1
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 0

Input y: 3

	0	1	2	3	4	5	6	7
0	1	-	-	0	-	-	-	1
1	-	-	-	-	-	-	-	-

2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 0

Input y: 2

	0	1	2	3	4	5	6	7
0	1	-	0	0	-	-	-	1
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 0

Input y: 1

	0	1	2	3	4	5	6	7
0	1	1	0	0	-	-	-	1
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 1

Input y: 1

	0	1	2	3	4	5	6	7
0	1	1	0	0	-	-	-	1
1	-	2	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square

'b' Add flag

'c' Remove flag

'd' See board so far

'e' Number of bombs left:

'f' Quit

a

Input x: 1

Input y: 2

	0	1	2	3	4	5	6	7
0	1	1	0	0	-	-	-	1
1	-	2	1	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square

'b' Add flag

'c' Remove flag

'd' See board so far

'e' Number of bombs left:

'f' Quit

a

Input x: 1

Input y: 3

	0	1	2	3	4	5	6	7
0	1	1	0	0	-	-	-	1
1	-	2	1	0	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square

'b' Add flag

'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' Quit

a

Input x: 0

Input y: 4

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	-	2	1	0	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' Quit

a

Input x: 1

Input y: 4

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	-	2	1	0	1	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' Quit

b

Input x for flag: 1

Input y for flag: 0

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 2

Input y: 3

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	-	-	-	0	-	-	-	-
3	-	-	-	-	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 3

Input y: 3

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	-	-	-	0	-	-	-	-
3	-	-	-	1	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 2

Input y: 2

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	-	-	2	0	-	-	-	-

3	-	-	-	1	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' Quit

b

Input x for flag: 2

Input y for flag: 1

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	-	f	2	0	-	-	-	-
3	-	-	-	1	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' Quit

a

Input x: 2

Input y: 0

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	3	f	2	0	-	-	-	-
3	-	-	-	1	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' Quit

a

Input x: 3

Input y: 2

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	3	f	2	0	-	-	-	-
3	-	-	2	1	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

b

Input x for flag: 3

Input y for flag: 1

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	3	f	2	0	-	-	-	-
3	-	f	2	1	-	-	-	-
4	1	1	-	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

e

Your bombs left to find are: 6

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 4

Input y: 2

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	3	f	2	0	-	-	-	-

3	-	f	2	1	-	-	-	-
4	1	1	1	-	-	-	-	-
5	0	1	-	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' Quit

a

Input x: 5

Input y: 2

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	3	f	2	0	-	-	-	-
3	-	f	2	1	-	-	-	-
4	1	1	1	-	-	-	-	-
5	0	1	1	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' Quit

a

Input x: 4

Input y: 3

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	3	f	2	0	-	-	-	-
3	-	f	2	1	-	-	-	-
4	1	1	1	2	-	-	-	-
5	0	1	1	-	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' Quit

a

Input x: 5

Input y: 3

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	3	f	2	0	-	-	-	-
3	-	f	2	1	-	-	-	-
4	1	1	1	2	-	-	-	-
5	0	1	1	3	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 2

Input y: 4

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	3	f	2	0	0	-	-	-
3	-	f	2	1	-	-	-	-
4	1	1	1	2	-	-	-	-
5	0	1	1	3	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 3

Input y: 4

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	-	-	-
2	3	f	2	0	0	-	-	-
3	-	f	2	1	1	-	-	-
4	1	1	1	2	-	-	-	-
5	0	1	1	3	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag

'd' See board so far  
 'e' Number of bombs left:  
 'f' Quit

a

Input x: 1

Input y: 5

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	-	-	-
3	-	f	2	1	1	-	-	-
4	1	1	1	2	-	-	-	-
5	0	1	1	3	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' Quit

a

Input x: 2

Input y: 5

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	-	-	-
4	1	1	1	2	-	-	-	-
5	0	1	1	3	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' Quit

a

Input x: 3

Input y: 5

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	1	-	-
4	1	1	1	2	-	-	-	-
5	0	1	1	3	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

b

Input x for flag: 4

Input y for flag: 4

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	1	-	-
4	1	1	1	2	f	-	-	-
5	0	1	1	3	-	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

b

Input x for flag: 5

Input y for flag: 4

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	1	-	-
4	1	1	1	2	f	-	-	-
5	0	1	1	3	f	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 4

Input y: 5

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	-	-	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	1	-	-

4	1	1	1	2	f	2	-	-
5	0	1	1	3	f	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' Quit

b

Input x for flag: 0  
Input y for flag: 5

0	0	1	2	3	4	5	6	7
0	1	1	0	0	1	f	-	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	1	-	-
4	1	1	1	2	f	2	-	-
5	0	1	1	3	f	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' Quit

b

Input x for flag: 0  
Input y for flag: 6

0	0	1	2	3	4	5	6	7
0	1	1	0	0	1	f	f	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	1	-	-
4	1	1	1	2	f	2	-	-
5	0	1	1	3	f	-	-	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' Quit

e

Your bombs left to find are: 2

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 5

Input y: 6

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	f	f	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	1	-	-
4	1	1	1	2	f	2	-	-
5	0	1	1	3	f	-	0	-
6	0	1	-	-	-	-	-	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

a

Input x: 6

Input y: 6

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	f	f	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	1	-	-
4	1	1	1	2	f	2	-	-
5	0	1	1	3	f	-	0	-
6	0	1	-	-	-	-	1	1
7	0	1	-	-	-	-	-	1

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' Quit

b

Input x for flag: 7

Input y for flag: 6

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	f	f	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	1	-	-

4	1	1	1	2	f	2	-	-
5	0	1	1	3	f	-	0	-
6	0	1	-	-	-	-	1	1
7	0	1	-	-	-	-	f	1

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' Quit

a

Input x: 5

Input y: 5

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	f	f	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	1	-	-
4	1	1	1	2	f	2	-	-
5	0	1	1	3	f	2	0	-
6	0	1	-	-	-	-	1	1
7	0	1	-	-	-	-	f	1

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' Quit

a

Input x: 6

Input y: 5

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	f	f	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	1	-	-
4	1	1	1	2	f	2	-	-
5	0	1	1	3	f	2	0	-
6	0	1	-	-	-	2	1	1
7	0	1	-	-	-	-	f	1

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' Quit

a

Input x: 7

Input y: 4

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	f	f	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	1	-	-
4	1	1	1	2	f	2	-	-
5	0	1	1	3	f	2	0	-
6	0	1	-	-	-	2	1	1
7	0	1	-	-	0	-	f	1

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' Quit

b

Input x for flag: 6

Input y for flag: 2

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	f	f	1
1	f	2	1	0	1	2	-	-
2	3	f	2	0	0	0	-	-
3	-	f	2	1	1	1	-	-
4	1	1	1	2	f	2	-	-
5	0	1	1	3	f	2	0	-
6	0	1	f	-	-	2	1	1
7	0	1	-	-	0	-	f	1

Want to check if you are right? (yes or no)yes

Congratulations! You got all the bombs!

Your board was:

	0	1	2	3	4	5	6	7
0	1	1	0	0	1	b	b	1
1	b	2	1	0	1	2	2	1
2	3	b	2	0	0	0	0	0
3	2	b	2	1	1	1	0	0
4	1	1	1	2	b	2	0	0
5	0	1	1	3	b	2	0	0
6	0	1	b	2	1	2	1	1
7	0	1	1	1	0	1	b	1

>>>

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## Transcript of Minesweeper Pro

Do you want an easy ('E'), medium ('M'), or hard ('H') board? E

	0	1	2	3	4	5	6	7
0	0	0	0	0	G	G	A	0
1	0	0	0	A	0	0	B	0

2	0	0	0	0	G	0	0	0
3	0	B	0	G	0	0	A	0
4	G	0	A	G	B	0	0	A
5	B	B	A	0	B	0	B	G
6	0	G	0	B	0	0	0	0
7	A	A	A	0	G	0	0	B

	0	1	2	3	4	5	6	7
0	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	B	101
2	1	1	111	120	G	111	101	101
3	11	B	121	G	31	111	A	200
4	G	213	A	G	B	103	211	A
5	B	B	A	213	B	3	B	G
6	212	G	312	B	12	12	12	12
7	A	A	A	111	G	10	1	B

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 0  
 Input y: 0  
 Armor: 0, Gold: 0

	0	1	2	3	4	5	6	7
0	0	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 9  
 9out of bounds. Input x: 0  
 Input y: 1  
 Armor: 0, Gold: 0

	0	1	2	3	4	5	6	7
0	0	0	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 0  
 Input y: 2  
 Armor: 0, Gold: 0

	0	1	2	3	4	5	6	7
0	0	0	100	-	-	-	-	-
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square

- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 0  
 Input y: 3  
 Armor: 0, Gold: 0

	0	1	2	3	4	5	6	7
0	0	0	100	110	-	-	-	-
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 0  
 Input y: 4  
 Found Gold. Now at: 10  
 Armor: 0, Gold: 10

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	-	-	-
1	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag

- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 1

Input y: 0

Armor: 0, Gold: 10

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	-	-	-
1	0	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 1

Input y: 1

Armor: 0, Gold: 10

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	-	-	-
1	0	0	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far

'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 1  
 Input y: 2  
 Armor: 0, Gold: 10

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	-	-	-
1	0	0	100	-	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 1  
 Input y: 3  
 Found Armor. Now at: 30  
 Armor: 30, Gold: 10

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	-	-	-
1	0	0	100	A	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:

'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 1  
 Input y: 4  
 Armor: 30, Gold: 10

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	-	-	-
1	0	0	100	A	130	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 1  
 Input y: 5  
 Armor: 30, Gold: 10

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	-	-	-
1	0	0	100	A	130	131	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:

'h' Get Score for Square:  
'i' See Rules of Game:  
'q' Quit

a

Input x: 0  
Input y: 5  
Found Gold. Now at: 30  
Armor: 30, Gold: 30

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' See Armor Score  
'g' See Amount of Gold:  
'h' Get Score for Square:  
'i' See Rules of Game:  
'q' Quit

a

Input x: 2  
Input y: 3  
Armor: 30, Gold: 30

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	-	-	-	120	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' See Armor Score  
'g' See Amount of Gold:  
'h' Get Score for Square:

'i' See Rules of Game:

'q' Quit

a

Input x: 2

Input y: 4

Found Gold. Now at: 40

Armor: 30, Gold: 40

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	-	-	-	120	G	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square

'b' Add flag

'c' Remove flag

'd' See board so far

'e' Number of bombs left:

'f' See Armor Score

'g' See Amount of Gold:

'h' Get Score for Square:

'i' See Rules of Game:

'q' Quit

a

Input x: 2

Input y: 5

Armor: 30, Gold: 40

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	-	-	-	120	G	111	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square

'b' Add flag

'c' Remove flag

'd' See board so far

'e' Number of bombs left:

'f' See Armor Score

'g' See Amount of Gold:

'h' Get Score for Square:

'i' See Rules of Game:

'q' Quit

a

Input x: 2

Input y: 2

Armor: 30, Gold: 40

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	-	-	111	120	G	111	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square

'b' Add flag

'c' Remove flag

'd' See board so far

'e' Number of bombs left:

'f' See Armor Score

'g' See Amount of Gold:

'h' Get Score for Square:

'i' See Rules of Game:

'q' Quit

a

Input x: 3

Input y: 2

Armor: 30, Gold: 40

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	-	-	111	120	G	111	-	-
3	-	-	121	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square

'b' Add flag

'c' Remove flag

'd' See board so far

'e' Number of bombs left:

'f' See Armor Score

'g' See Amount of Gold:

'h' Get Score for Square:

'i' See Rules of Game:

'q' Quit

a

Input x: 3  
 Input y: 3  
 Found Gold. Now at: 60  
 Armor: 30, Gold: 60

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	-	-	111	120	G	111	-	-
3	-	-	121	G	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 3  
 Input y: 4  
 Armor: 30, Gold: 60

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	-	-	111	120	G	111	-	-
3	-	-	121	G	31	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 2

Input y: 0  
Armor: 30, Gold: 60

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	-	111	120	G	111	-	-
3	-	-	121	G	31	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' See Armor Score  
'g' See Amount of Gold:  
'h' Get Score for Square:  
'i' See Rules of Game:  
'q' Quit

a

Input x: 2  
Input y: 1  
Armor: 30, Gold: 60

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	-	-
3	-	-	121	G	31	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' See Armor Score  
'g' See Amount of Gold:  
'h' Get Score for Square:  
'i' See Rules of Game:  
'q' Quit

h

Score for x: 0  
Score for y: 5  
score at x: 0, y: 5 :121

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' See Armor Score  
'g' See Amount of Gold:  
'h' Get Score for Square:  
'i' See Rules of Game:  
'q' Quit

d

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	-	-
3	-	-	121	G	31	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' See Armor Score  
'g' See Amount of Gold:  
'h' Get Score for Square:  
'i' See Rules of Game:  
'q' Quit

b

Input x for flag: 3  
Input y for flag: 1

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	-	-
3	-	f	121	G	31	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

count of bombs: 1

Input:

'a' Choose square

- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 3

Input y: 0

Armor: 30, Gold: 60

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	-	-
3	11	f	121	G	31	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 4

Input y: 0

Found Gold. Now at: 70

Armor: 30, Gold: 70

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	-	-
3	11	f	121	G	31	-	-	-
4	G	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag

'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 4

Input y: 1

Armor: 30, Gold: 70

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	-	-
3	11	f	121	G	31	-	-	-
4	G	213	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 4

Input y: 2

Found Armor. Now at: 40

Armor: 40, Gold: 70

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	-	-
3	11	f	121	G	31	-	-	-
4	G	213	A	-	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag

'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 4  
 Input y: 3  
 Found Gold. Now at: 90  
 Armor: 40, Gold: 90

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	-	-
3	11	f	121	G	31	-	-	-
4	G	213	A	G	-	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

h

Score for x: 4  
 Score for y: 3  
 score at x: 4, y: 3 :222

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

h

Score for x: 3  
 Score for y: 3  
 score at x: 3, y: 3 :131

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

b

Input x for flag: 4

Input y for flag: 4

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	-	-
3	11	f	121	G	31	-	-	-
4	G	213	A	G	f	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

count of bombs: 2

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 3

Input y: 5

Armor: 40, Gold: 90

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	-	-
3	11	f	121	G	31	111	-	-
4	G	213	A	G	f	-	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 4

Input y: 5

Armor: 40, Gold: 90

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	-	-
3	11	f	121	G	31	111	-	-
4	G	213	A	G	f	103	-	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 4

Input y: 6

Armor: 40, Gold: 90

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	-	-
3	11	f	121	G	31	111	-	-
4	G	213	A	G	f	103	211	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 3  
 Input y: 6  
 Found Armor. Now at: 60  
 Armor: 60, Gold: 90

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	-	-
3	11	f	121	G	31	111	A	-
4	G	213	A	G	f	103	211	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 2  
 Input y: 6  
 Armor: 60, Gold: 90

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	-	-
2	1	1	111	120	G	111	101	-
3	11	f	121	G	31	111	A	-
4	G	213	A	G	f	103	211	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square

- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

b

Input x for flag: 1

Input y for flag: 6

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	-	-
1	0	0	100	A	130	131	f	-
2	1	1	111	120	G	111	101	-
3	11	f	121	G	31	111	A	-
4	G	213	A	G	f	103	211	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

count of bombs: 3

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 0

Input y: 6

Found Armor. Now at: 70

Armor: 70, Gold: 90

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	-
1	0	0	100	A	130	131	f	-
2	1	1	111	120	G	111	101	-
3	11	f	121	G	31	111	A	-
4	G	213	A	G	f	103	211	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag

'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 1

Input y: 7

Armor: 70, Gold: 90

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	-
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	-
3	11	f	121	G	31	111	A	-
4	G	213	A	G	f	103	211	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 2

Input y: 7

Armor: 70, Gold: 90

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	-
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	-
4	G	213	A	G	f	103	211	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far

'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 3  
 Input y: 7  
 Armor: 70, Gold: 90

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	-
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	-
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 4  
 Input y: 7  
 Found Armor. Now at: 90  
 Armor: 90, Gold: 90

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	-
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:

'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 9  
 9out of bounds. Input x: 0  
 Input y: 7  
 Armor: 90, Gold: 90

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

h

Score for x: 4  
 Score for y: 7  
 score at x: 4, y: 7 :211

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

h

Score for x: 4  
 Score for y: 3  
 score at x: 4, y: 3 :222

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

h

Score for x: 4  
Score for y: 4  
score at x: 4, y: 4 :22

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

b

Input x for flag: 5  
Input y for flag: 4

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	-	-	-	-	f	-	-	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

count of bombs: 4

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

h  
 Score for x: 4  
 Score for y: 7  
 score at x: 4, y: 7 :211

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

b

Input x for flag: 5  
 Input y for flag: 6

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	-	-	-	-	f	-	f	-
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

count of bombs: 5

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 5  
 Input y: 5  
 Armor: 90, Gold: 90

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	-	-	-	-	f	3	f	-

```

6   -   -   -   -   -   -   -   -
7   -   -   -   -   -   -   -   -

```

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 5

Input y: 7

Found Gold. Now at: 100

Armor: 90, Gold: 100

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	-	-	-	-	f	3	f	G
6	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 6

Input y: 4

Armor: 90, Gold: 100

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	-	-	-	-	f	3	f	G
6	-	-	-	-	12	-	-	-

7 - - - - -

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 6

Input y: 5

Armor: 90, Gold: 100

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	-	-	-	-	f	3	f	G
6	-	-	-	-	12	12	-	-
7	-	-	-	-	-	-	-	-

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 6

Input y: 6

Armor: 90, Gold: 100

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	-	-	-	-	f	3	f	G
6	-	-	-	-	12	12	12	-
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' See Armor Score  
'g' See Amount of Gold:  
'h' Get Score for Square:  
'i' See Rules of Game:  
'q' Quit

h

Score for x: 5  
Score for y: 6  
score at x: 5, y: 6 :111

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' See Armor Score  
'g' See Amount of Gold:  
'h' Get Score for Square:  
'i' See Rules of Game:  
'q' Quit

a

Input x: 6  
Input y: 7  
Armor: 90, Gold: 100

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	-	-	-	-	f	3	f	G
6	-	-	-	-	12	12	12	12
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
'b' Add flag  
'c' Remove flag  
'd' See board so far  
'e' Number of bombs left:  
'f' See Armor Score  
'g' See Amount of Gold:  
'h' Get Score for Square:  
'i' See Rules of Game:

'q' Quit  
 h  
 Score for x: 4  
 Score for y: 4  
 score at x: 4, y: 4 :22

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a  
 Input x: 5  
 Input y: 3  
 Armor: 90, Gold: 100

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	-	-	-	213	f	3	f	G
6	-	-	-	-	12	12	12	12
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

h  
 Score for x: 4  
 Score for y: 3  
 score at x: 4, y: 3 :222

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag

'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 5  
 Input y: 2  
 Found Armor. Now at: 120  
 Armor: 120, Gold: 100

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	-	-	A	213	f	3	f	G
6	-	-	-	-	12	12	12	12
7	-	-	-	-	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

h

Score for x: 4  
 Score for y: 2  
 score at x: 4, y: 2 :222

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

b

Input x for flag: 5  
 Input y for flag: 1

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	-	f	A	213	f	3	f	G
6	-	-	-	-	12	12	12	12
7	-	-	-	-	-	-	-	-

count of bombs: 6

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

b

Input x for flag: 5

Input y for flag: 0

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	f	f	A	213	f	3	f	G
6	-	-	-	-	12	12	12	12
7	-	-	-	-	-	-	-	-

count of bombs: 7

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

h

Score for x: 5

Score for y: 4

score at x: 5, y: 4 :13

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

b

Input x for flag: 6

Input y for flag: 3

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	f	f	A	213	f	3	f	G
6	-	-	-	f	12	12	12	12
7	-	-	-	-	-	-	-	-

count of bombs: 8

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 7

Input y: 3

Armor: 120, Gold: 100

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	f	f	A	213	f	3	f	G
6	-	-	-	f	12	12	12	12
7	-	-	-	111	-	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 7  
 Input y: 4  
 Found Gold. Now at: 130  
 Armor: 120, Gold: 130

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	f	f	A	213	f	3	f	G
6	-	-	-	f	12	12	12	12
7	-	-	-	111	G	-	-	-

Input:

'a' Choose square  
 'b' Add flag  
 'c' Remove flag  
 'd' See board so far  
 'e' Number of bombs left:  
 'f' See Armor Score  
 'g' See Amount of Gold:  
 'h' Get Score for Square:  
 'i' See Rules of Game:  
 'q' Quit

a

Input x: 7  
 Input y: 5  
 Armor: 120, Gold: 130

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	f	f	A	213	f	3	f	G
6	-	-	-	f	12	12	12	12
7	-	-	-	111	G	10	-	-

Input:

'a' Choose square

- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

a

Input x: 7  
 Input y: 6  
 Armor: 120, Gold: 130

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	f	f	A	213	f	3	f	G
6	-	-	-	f	12	12	12	12
7	-	-	-	111	G	10	1	-

Input:

- 'a' Choose square
- 'b' Add flag
- 'c' Remove flag
- 'd' See board so far
- 'e' Number of bombs left:
- 'f' See Armor Score
- 'g' See Amount of Gold:
- 'h' Get Score for Square:
- 'i' See Rules of Game:
- 'q' Quit

b

Input x for flag: 7  
 Input y for flag: 7

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101
1	0	0	100	A	130	131	f	101
2	1	1	111	120	G	111	101	101
3	11	f	121	G	31	111	A	200
4	G	213	A	G	f	103	211	A
5	f	f	A	213	f	3	f	G
6	-	-	-	f	12	12	12	12
7	-	-	-	111	G	10	1	f

count of bombs: 9  
 Want to see if you win?yes

Congratulations! You got all the bombs!  
 Your board was:

	0	1	2	3	4	5	6	7
0	0	0	100	110	G	G	A	101

1	0	0	100	A	130	131	B	101
2	1	1	111	120	G	111	101	101
3	11	B	121	G	31	111	A	200
4	G	213	A	G	B	103	211	A
5	B	B	A	213	B	3	B	G
6	212	G	312	B	12	12	12	12
7	A	A	A	111	G	10	1	B

Sorry, not enough gold with 130  
Game over!