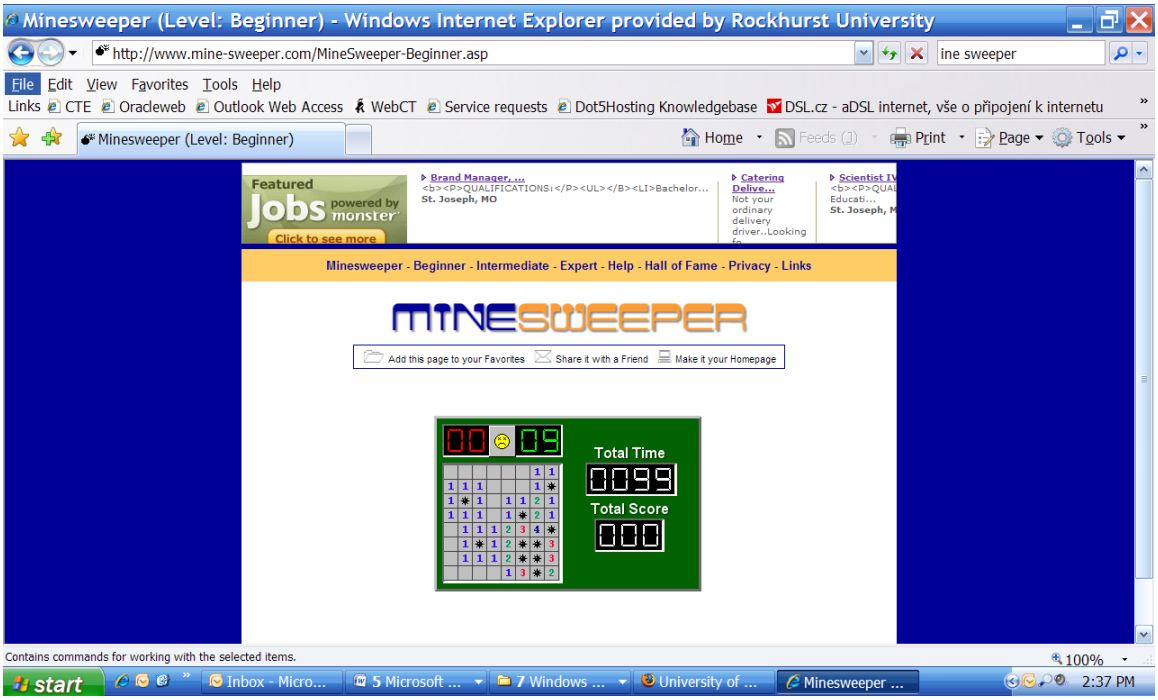
Intro to Abstract Math

Name:_____

"Avoiding the Ka-Boom!" - MineSweeper

http://www.mine-sweeper.com/MineSweeper-Beginner.asp



The purpose of the game is to open all the cells of the board which do not contain a bomb. You lose if you set off a bomb cell.

Every non-bomb cell you open will tell you the total number of bombs in the eight neighboring cells. Once you are sure that a cell contains a bomb, you can right-click to put a flag on it as a reminder. Once you have flagged all the bombs around an open cell, you can quickly open the remaining non-bomb cells by left-clicking on the cell.

To start a new game (abandoning the current one), just click on the yellow face button.

Happy mine hunting!

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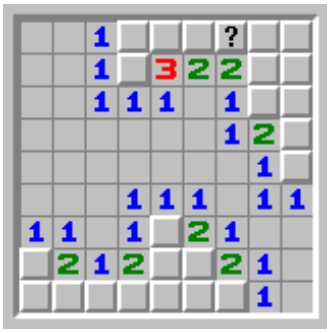
Answer the following questions. Justify the answers using complete sentences. You may refer to a square by using an ordered pair to denote its position. For example, let (5, d) represent the square in row 5, column d.

Assume you are explaining what you're thinking to someone that has never seen this game before. Clearly and precisely describe each of the logical steps you have used to answer the question.

<u>Minefield #1</u> Is there a mine located at position (1, g)?

a b c d e f g h i

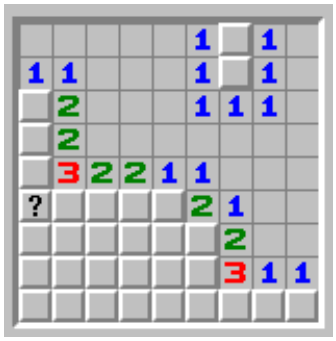


Answer:
Argument:

<u>Minefield #2</u> – Is there a mine in position (6,a)?

a b c d e f g h i

1
2
3
4
5
6
7
8
9



Answer:
Argument: