CS 324 Intro to Design of Algorithm
Practice 7 Fall 2017

Question 1 Write the method `greedyColoring` that produces a solution to the graph coloring problem. The method takes as parameters a two-dimensional adjacent matrix that represents the graph, an `int` array that holds color indices for the vertices, an `int` variable `n`, which is the number of vertices in the graph. Your implementation should follow the greedy coloring algorithm introduced in the lecture. The method should save the resultant color indices in array `vcolor`.

```
void greedyColoring(int[][] W, int[] vcolor, int n)
```

Example:

```
n = 4
W = {{1, 1, 1, 1},
     {1, 1, 1, 0},
     {1, 1, 1, 1},
     {1, 0, 1, 1}}
```

Your program should print out "`[1, 2, 3, 2]`"

```
n = 6
B = {{0, 1, 1, 0, 1, 1},
     {1, 0, 1, 1, 0, 1},
     {1, 1, 0, 1, 1, 0},
     {0, 1, 1, 0, 1, 1},
     {1, 0, 1, 1, 0, 1},
     {1, 1, 0, 1, 1, 0}}
```

Your program should print out "`[1, 2, 3, 1, 2, 3]`"