CSE 1224 - Lab 6 - Due Tuesday, October 25 by 11:59 pm

In the lecture on October 19, we created two functions that found the maximum degree of a vertex in a graph. You should review this code, which is posted on Piazza, before completing this lab.

1) Write a function called **min_degree_d(di)** that takes a dictionary representation of a graph as an argument and return the minimum degree of a node in the graph. For example, if the following dictionary is pass to the function as an argument,

```
d = {0 : [1, 2, 4],
     1 : [0, 2, 3, 4, 5],
     2 : [0, 1],
     3 : [1, 4],
     4 : [0, 1, 3],
     5 : [1]}
```

then the function should return 1, since vertex 5 has a degree of 1.

Hint: What should you initialize the variable **result** to? In other words, what is the minumum possible degree of a vertex for a given dictionary representation with n nodes?

2) Write a function called **min_degree_m(mat)** that takes a matrix representation of a graph as an argument and return the minimum degree of a node in the graph.

For example, if the following matrix is pass to the function as an argument,

```
[[0, 1, 1, 0, 1, 0],
 [1, 0, 1, 1, 1, 1],
 [1, 1, 0, 0, 0, 0],
 [0, 1, 0, 0, 1, 0],
 [1, 1, 0, 1, 0, 0],
 [0, 1, 0, 0, 0, 0]]
```

then the function should return 1, since vertex 5 has a degree of 1.