Laboratory 6 Summary:

Exercise 1:

* can be solves easily, using the provided algorithm
* the find neighbors function will be modified to provide the specified order of neighbors
* dir will be initialized and updated as mentioned in the algorithm
* the last two points in the list of border points will be deleted, as they are duplicated (same as the first two)
* problems appeared due to an infinite cycle, but it was quickly solved by reading the algorithm more carefully (the stop conditions)
* the function creates a list of border points (their coordinates are important)

Exercise 2:

* the exercise can be solved by borrowing code from the previous exercise and adding the necessary modifications necessary for keeping track of the directions followed (dir pushed in a vector)
* the derivative can be computed by subtracting the current direction from the previous one; if it is negative, add 8 (if 8 neighbors) or 4 (if 4 neighbors)
* the last two codes will be deleted as they are duplicated (same as first two)

Exercise 3:

* a simple algorithm for following the given directions
* the current coordinates are held and updated each time using the given directions
* the coordinates that are obtained are used for coloring the entries of an image matrix