Homework 1 is due Friday, January 20th at 5pm.
Late submission will not be accepted.

Problem 1: Find Number (100 Points)

Please turn in `findnum.cpp` that contains your implementation of the `find_num` function. In particular,

- I provided `findnum.h` which declares the function `find_num`. You should not edit this file!
- In `findnum.cpp`, you should implement the above function, i.e. provide the detailed definition.
- I provided `findnum_main.cpp`, you should not edit this file, but you will run this and it will test your implementation.

The function `findnum` finds the first occurrence of the integer `num` in the array `arr` (recall that `arr` is also a pointer), and returns a pointer with the address of that element. If there does not exist an element in `arr` with value `num`, then return `nullptr`.
Just to repeat, the pointer that is returned from the function should contain the address of the first occurrence of the element in `arr` that has the same value as `num`, but if none exists then the function should return `nullptr`.

- **Note:** There will be no user input. Just run the `findnum_main.cpp` and check your answers.

Instructions

- All code must be written originally by yourself. You are not allowed to (even partially) copy code from anyone else. Incident of cheating or plagiarism will be reported to the Dean's office and results in a zero grade in this assignment.
- (5pt) Submit the files with exactly the name `findnum.cpp`, and only submit it to Gradescope.
- (5pt) Add declaration in the beginning of each cpp file to show the ownership. Please put your name, UID, and discussion section in a comment at the top of your source files (before the include statements). A sample description may look like:

```
/*
    PIC 10A Homework 1, number.cpp
    Author: John Doe
    UID: 111111111
    Discussion Section: 1A
    Date: 01/01/2022
*/
```

- (80pt) Implement the program correctly.

- (10pt) Write your code with good coding practices, including commenting your code, using descriptive variable names, using constant variables, etc.
- Code compiles with Visual Studio 2022 and solves the questions. Students may lose the majority of points if their code doesn't compile with VS 2022. To receive full credits, the output must look EXACTLY the same as instructed above, including words, spaces, symbols, etc. Your code should not only work for the above examples, but also work for other different inputs.