

Practice questions v7: local/global variables and Functions

1. Find the output of the following programs **without running them on the compiler**. Dry run on paper and then cross check your output with the one that compiler gave.

```
#include <iostream>
using namespace std;
char mystery(int first_par, int second_par);
int main()
{
    cout << mystery(10, 9) << "ow\n";
    return 0;
}
char mystery(int first_par, int second_par)
{
    if (first_par >= second_par)
        return 'W';
    else
        return 'H';
}
```

2. Write a function declaration and a function definition for a function that takes three arguments, all of type *int*, and that returns the sum of its three arguments.
3. Write a function declaration and a function definition for a function that takes one argument of type *int* and one argument of type *double*, and that returns a value of type *double* that is the average of the two arguments.
4. Write a function declaration and a function definition for a function that takes one argument of type *double*. The function returns the character value 'P' if its argument is positive and returns 'N' if its argument is zero or negative.
5. Write a function definition for a function called `in_order` that takes three arguments of type *int*. The function returns *true* if the three arguments are in ascending order; otherwise, it returns *false*. For example, `in_order(1, 2, 3)` and `in_order(1, 2, 2)` both return *true*, while `in_order(1, 3, 2)` returns *false*.
6. Write a function definition for a function called `even` that takes one argument of type *int* and returns a *bool* value. The function returns *true* if its one argument is an even number; otherwise, it returns *false*.
7. Write a function definition for a function `is_root_of` that takes two arguments of type *int* and returns a *bool* value. The function returns *true* if the first argument is the square root of the second; otherwise, it returns *false*.