

Programming Session Assignment 01

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1. Required files

You need to submit a .zip file named **PSA01_b07901xxx.zip** (your student ID) that contains the following files:

PSA01_p1.cpp

PSA01_p2.cpp

PSA01_p3.cpp

Please upload the .zip file to the CEIBA website by the deadline. **Do not submit any executable files (.exe)**. Files with names in wrong format will not be graded.

Due date: 9/27 03:00

2. Problem Description

(1) [Debug] [Required File: PSA01_p1.cpp]

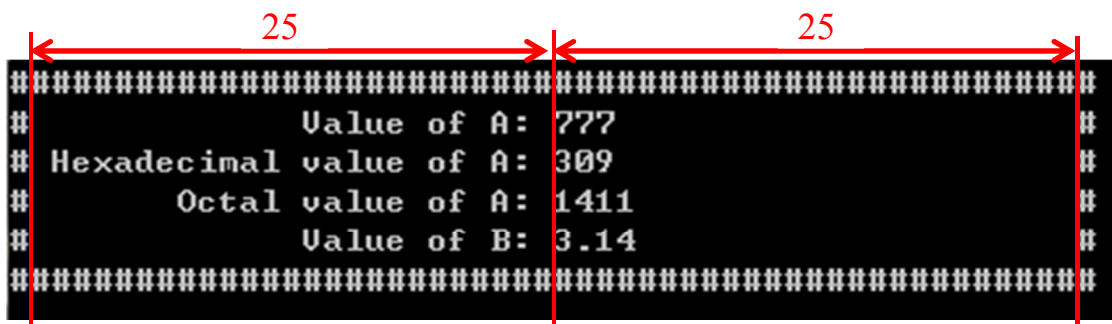
In this problem, we want to output today's date. We use some variables to store the date. However, there are some obvious bugs in our sample code. Please fix the bugs so that you can show the same result as the sample output.



Date: 9\26\2018

(2) [Output manipulator] [Required File: PSA01_p2.cpp]


Please use output manipulators to display the same result as the sample output.



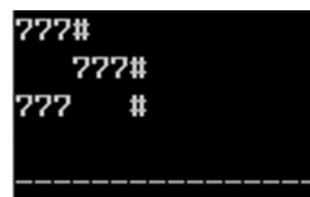
The sample output for problem 2 is a text-based table with two columns, each 25 characters wide. The output is as follows:

#####	#####
# Value of A: 777	#
# Hexadecimal value of A: 309	#
# Octal value of A: 1411	#
# Value of B: 3.14	#
#####	#####

[Hint] You can use `setw(n)` defined in header `<iomanip>` to set the width of the output stream to exactly `n`, and use `setprecision(n)` to control the output precision.



```
int main()
{
    int a = 777;
    cout << a << "#" << endl;
    cout << setw(6) << right << a << "#" << endl;
    cout << setw(6) << left << a << "#" << endl;
    return 0;
}
```



```
777#
 777#
777 #
-----
```

(3) [ASCII Decoder] [Required File: PSA01_p3.cpp]

Please fill in all TODOs in **PSA01_p3.cpp** to show the output as required. You can see **PSA01_p3_example.cpp** as an example to find out the unknown values. Try to modify or extend the example code to get all unknown values in **PSA01_p3.cpp**. (You don't need to submit your PSA01_p3_example.cpp.)

```
int i = ; //TODO (find out the value of i)
c1 = ' ' + i; // TODO (fill in a character)
c2 = 78 + i;
c3 = ' ' + i; // TODO (fill in a character)
```

deCodedMessage

(Required output)

[Hint] Maybe you would need the ASCII table, you can find in **Variable** page 8.

[Hint] You should find out the value of variable i first, then you can get other answers one by one.