CS 107: Computer Programming – Section 2 – College of Engineering

1433/1434: First Semester; Monday 27/12/1433; Duration: 30 minutes

Quiz 1 (2 exercises, 2 pages)

Exercise 1 (3 points)

What is the output of the following codes?

1) (1 point)

```
#include <iostream>
using namespace std;

int main() {
      int x = 7;
      int y = 5;
      int z = 3 + x % y;
      cout << "z = " << z << endl;
      return 0;
}
```

z = 5

2) (1 point)

```
#include <iostream>
using namespace std;

int main() {
      int x = 8;
      int y = 8;
      int z;
      if (x > y) z =  1 + x;
      else z = 2 + y;
      cout << "z = " << z << endl;
      return 0;
}
```

z = 10

3) (1 point)

```
#include <iostream>
using namespace std;

int main() {
      int n = 7;
      int i = 0;
      while (i < n) {
            if (i / 5 == 1) {
                  n--;
                  continue;
            }
            i++;
      }
      cout << "i = "  << i << endl;
      return 0;
}
```

i = 5

Exercise 2 (2 points)

Write a C++ program that determines the largest prime number smaller than a given number **n**.

Example 1:
n = 24
23
Example 2:
n = 31
29

```
// Previous Prime Number

#include <iostream>

using namespace std;


int main() {
	int n;
	int i;
	int j;


	cout << "n = ";
	cin >> n;
	i = n - 1;
	while (i >= 2) {
		j = 2;
		while (j < i) {
			if (i % j == 0) {
				break;
			}
			j++;
		}
		if (j == i) {
			cout << i << endl;
			break;
		}
		i--;
	}
	return 0;
}
```