

CS 107: Computer Programming – Section 3 – 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 = 9;
    int y = 4;
    int z = 2 * x / y;
    cout << "z = " << z << endl;
    return 0;
}
```

z = 4

2) (1 point)

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

int main() {
    int x = 1;
    int y = 3;
    int z;
    if (x != y) z = x + y;
    else z = y - x;
    cout << "z = " << z << endl;
    return 0;
}
```

z = 4

3) (1 point)

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

int main() {
    int n = 7;
    int i = 1;
    while (i < n) {
        if (n % i == 3) {
            n--;
            continue;
        }
        i++;
    }
    cout << "i = " << i << endl;
    return 0;
}
```

i = 6

Exercise 2 (2 points)

Write a C++ program that determines the list of prime numbers in the range **[n, p]**, where **n** and **p** are two given numbers.

Example 1:

n = 24

p = 42

29 31 37 41

Example 2:

n = 29

p = 37

31

// List of Prime Numbers

```
#include <iostream>
```

```
using namespace std;
```

```
int main() {
```

```
    int n, p, i, j;
```

```
    cout << "n = ";
```

```
    cin >> n;
```

```
    cout << "p = ";
```

```
    cin >> p;
```

```
    i = n + 1;
```

```
    while (i < p) {
```

```
        j = 2;
```

```
        while (j < i) {
```

```
            if (i % j == 0) {
```

```
                break;
```

```
            }
```

```
            j++;
```

```
        }
```

```
        if (j == i) {
```

```
            cout << i << " ";
```

```
        }
```

```
        i++;
```

```
    }
```

```
    cout << endl;
```

```
    return 0;
```

```
}
```