EECE.2160: ECE Application Programming

Fall 2016

Lecture 12: Key Questions
October 3, 2016

1. Review: Discuss input validation and iterative algorithms.

2. In what cases are `for` loops useful? Describe the basic structure of a `for` loop.

3. Describe the operators that allow you to directly modify a variable without writing a full assignment statement.

4. Explain the difference between pre- and post-increment or decrement operators.

5. **Example:** What does the following program print?

```
int n = 5;
printf("n = %d\n", ++n);
printf("Now, n = %d\n", n++);
printf("Finally, n = %d\n", n);
```

6. **Example:** What does each of the following print?

a.
```
for (i = 5; i < 40; i += 8)
{
    printf("%d ", i);
}
```

b.
```
for (i = -5; i < -10; i--)
{
  printf("%d ", i);
}
```

c.
```
for (i = 10; i <= 100; i = i+10)
{
    if (i % 20)
        printf("%d ", i);
}
```

d.
```
for (i = 5; i < 10; i += i%2)
{
  printf("%d ", i++);
}
```

Finishing PE2:

Flowchart/code for 2^n

Flowchart/code for n!