EECE.2160: ECE Application ProgrammingSpring 2016

Lecture 3: Key Questions January 25, 2016

1. Briefly explain valid character constants.

2.	What are the four key characteristics of a variable?
3.	What rules must be followed when naming variables?
4.	Show how variables are declared and how values are assigned to them.

EECE.2160: ECE Application Programming
M. Geiger & P. Li
Spring 2016
Lecture 3: Key Questions

5. **Example:** What values do w, x, y, and z have at the end of this program?

```
int main() {
    int w = 5;
    float x;
    double y;
    char z = 'a';
    x = 8.579;
    y = -0.2;
    w = x;
    y = y + 3;
    z = w - 5;
    return 0;
}
```

6. What are the basic binary arithmetic operators supported by C?

7. Explain the modulus operator (%).

8. What determines the type of a binary operation's result?

9. What is the difference between division of integers and floating-point types?

10. Explain the operation of the unary negation operator (e.g., -x).

- 11. **Example:** Evaluate each of the following expressions, including the type (int or double) in your answer.
- a. 19/3
- b. 3/19
- c. 19%3
- d. 3%19
- e. 5 + 7/2
- f. 5.0 + 7/2
- g. 5 + 7.0/2
- h. 5 * 3 % 3 / 6 + 14 + 10 / 2
- i. 5 * (3 % 3) / 6 + 14.0 + 10/3