

# **EECE.2160: ECE Application Programming**

## Spring 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.

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;  
}
```



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.  $5 * (3 \% 3) / 6 + 14.0 + 10/3$