

EECE.2160: ECE Application Programming

Spring 2019

Lecture 17: Key Questions

March 8, 2019

QUESTIONS:

1. Describe the basic use and syntax of functions, including return types and arguments.
2. What is a function prototype? When and why is it necessary?
3. Explain the idea of scope and how it relates to functions. Also, explain what happens when function arguments are passed by value.

You may wish to refer to the following example or to the example code posted from the 3/8 lecture (lec16_main.c, basic_functions.c, basic_functions.h):

```
#include <stdio.h>
#include <math.h>

double hyp(double a, double b);

void main()
{
    double x,y,h;
    printf("Enter two legs of triangle: ");
    scanf("%lf %lf",&x,&y);
    h=hyp(x,y);
    printf("Trgle w legs %lf and %lf has hyp of %lf\n",
           x,y,h);
}

double hyp(double a, double b)
{
    double sum, result;
    sum = a*a + b*b;
    result = sqrt(sum);
    return result;
}
```