

16.216: ECE Application Programming

Spring 2015

Lecture 5: Key Questions

February 4, 2015

1. **Example:** Show the output of each of the following short programs:

a.

```
#include <stdio.h>
void main()
{
    int i=2, j=3, k, m;
    k = j * i;
    m = i + j;
    printf("%d %d %d %d\n", i, j, k, m);
}
```

b.

```
#include <stdio.h>
void main() {
    double f, g;
    f = 1.0 / 4.0;
    g = f * 20;
    printf("f = %lf,\ng = %.2lf\n", f, g);
}
```

c.

```
#include <stdio.h>
void main() {
    int a = 5, b = 2;
    printf("Output%doesn't%make%sense", a, b, a + b);
}
```

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4. **Example:** Assume you have the following variables: `int i; double d; char c;`
If your program contained each of the following calls to `scanf()`, what values would be read into the appropriate variables, given user input?
- a. Input: 34 5.7
`scanf("%d%lf", &i, &d)`

 - b. Input: 34 5.7
`scanf("%d %lf", &i, &d)`

 - c. Input: 34 5.7
`scanf("%lf%d", &d, &i)`

 - d. Input: 34 5.7
`scanf("%d%c", &i, &c)`

 - e. Input: 34 5.7
`scanf("%d %c", &i, &c)`