

16.216: ECE Application Programming

Fall 2013

Lecture 7: Key Questions

September 18, 2013

1. **Example:** What does the following code print?

```
int main() {
    int x = 3;
    int y = 7;

    if (x > 2)
        x = x - 2;
    else
        x = x + 2;

    if ((y % 2) == 1)
    {
        y = -x;
        if ((x != 0) && (y != -1))
            y = 0;
    }
    printf("x = %d, y = %d\n", x, y);
    return 0;
}
```

2. Discuss how to use `if` statements to check that a value falls within a desired range.

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4. Describe the basic format of a `switch` statement, including its general usage, the use of `case` and `default`, and the use of the `break` statement.

5. Describe a situation in which you might not want to use a `break` statement at the end of a given case.

6. **Example:** Given the code below:

```
int main() {
    char grd;

    printf("Enter Letter Grade: ");
    scanf("%c",&grd);
    printf("You are ");

    switch (grd) {
    case 'A' :
        printf("excellent\n");
        break;
    case 'B' :
        printf("good\n");
        break;
    case 'C' :
        printf("average\n");
        break;
    case 'D' :
        printf("poor\n");
        break;
    case 'F' :
        printf("failing\n");
        break;
    default :
        printf("incapable of reading directions\n");
        break;
    }
    return 0;
}
```

What does the program print if the user inputs:

- a. A
- b. B+
- c. c
- d. X

7. How could we easily change each case to recognize both upper and lowercase inputs?