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CECS 424 Assignment 8 #2

(a) (10 points) Translate the following expression into postfix and prefix notation.

$$(b * b - 4 * a + c)/(2 * a)$$

Postfix:

b b * 4 a * - c + 2 a * /

Prefix:

/ + - * b b * 4 a c * 2 a

(b) (10 points) Consider the following program in C++. What will be the final values of fp count and int count. Run the program in your system and explain your answer.

```
int fp_count = 0, int_count = 0;
for (float i = 0; i < 1; i += 0.01) {
    fp_count++;
}
for (int i = 0; i < 100; i += 1) {
    int_count++;
}
```

The final value of fp_count will be 101 and the final value of int_count will be 100. In the for loop with float, the value i will get close to 1 but not actually reach 1 at the end of the loop. So the fp_count will get to increment once more before the loop ends, while the for loop with int will perform as expected.