1. Translate the following expression into postfix and prefix notation
   (b b – 4 a + c)/(2 a)
   Answer:
   Prefix notation:
   / + - * b b * 4 a c * 2 a
   Postfix notation:
   b b * 4 a * - c + 2 a * /
2. Consider the following program in C++. What will be the final values of fp count and int count? Why?

```
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++;
}
```

   Anwer:
   The final outputs of fp_count is 101 and int_count is 100.
   The reason why the final fp_count is 101 instead of 100 is due to the rounding error that occur when a computer try to convert fraction as binary value. It is impossible for a computer to store accurate value of some numbers such as fraction.