1. (2 pts) Suppose the following lines are in a main method? Will there be a compile-time error? If not, what is printed?

   ```java
   int i;
   i += 2;
   System.out.println(i);
   ```

2. (2 pts) Suppose the following lines are in a main method? Will 1 ever be printed? Why or why not?

   ```java
   int i = 4;
   while (i < 5) {
       System.out.println(i);
   }
   System.out.println(1);
   ```

3. (2 pts) What is the major difference between a while or pre-test loop and a do-while or post-test loop? What does one guarantee that the other doesn’t?

4. (2 pts) Suppose we wanted to print out all even numbers between 0 and 1000. Show the code that will do this using a while loop.

5. (2 pts) Recalling that the ASCII value of ’A’ is 65, write code that uses a while loop that will generate two distinct random uppercase characters and then print those out.