Quiz Preparation for Week 3

Concepts

- Arrays
  - multidimensional arrays
  - algorithms

- Compilation
  - do-while loop
  - compile/execute the codes

- Type inference
- Assertion
  - break/continue
  - switch
  - assert

Warm-ups problems

1. How do you initialize a 4-dimensional arrays?
2. What will the following code print out?

```java
int[][] arr = new int[10][];
System.out.println(arr[0][0]);
```

3. What will the following code print out?

```java
int[][] arr = new int[10][];
System.out.println(arr[0]);
```

4. What will the following code give you? What are the dimensions of the array *arr*?

```java
int[][] arr = new int[10][];
for (int i = 0; i < arr.length; i++) {
  arr[i] = new int[2 * i + 1];
}
```

5. When do you want to use the do-while loop?
6. How do you compile a simple java file named *your_file.java*?
7. What is the keyword for type inference in java?
8. What does continue do? What will be the output for the following codes?

```java
for (int i = 0; i < 10; i++) {
  if (i % 3 == 1 || i % 3 == 2) {
    continue;
  }
  System.out.println(i);
}
```

9. How do you use switch statements?
10. What does assert do in java?

Combining it all together!