Reading Assignments

- Chapter 3

Review: Random Numbers

- Random class in java.util package
  - public Random()
  - Constructor
    - public float nextFloat()
      - Returns random number between 0.0 (inclusive) and 1.0 (exclusive)
    - public int nextInt()
      - Returns random integer ranging over all possible int values
    - public int nextInt(int num)
      - Returns random integer in range 0 to (num-1)

Review: return Statement

- Use the return statement to specify the return value when implementing a method:
  ```java
  int addTwoInts(int a, int b) {
    return a+b;
  }
  ```
  - Syntax: return expression;
  - The method stops executing at that point and "returns" to caller.

Review: Tester Classes

- Die class has no main method.
- Best is to write another class that instantiates some objects of your new class and tries them out.
- Sometimes called a "tester" or "testbench"

Implementing Die and RollDice

- first pass
- testing
- refining

Information Hiding

- Hide fields from client programmer
  - maintain their integrity
  - allow us flexibility to change them without affecting code written by client programmer
- Parnas' Law:
  - "Only what is hidden can by changed without risk."

Public vs Private

- public keyword indicates that something can be referenced from outside object
  - can be seen/used by client programmer
- private keyword indicates that something cannot be referenced from outside object
  - cannot be seen/used by client programmer
- Let's fill in public/private for Die class

Public vs Private Example

```java
public class Die {
    ...
    public int roll() {
        ...
        private void cheat(int nextRoll) {
            ...
        }
    }
}
```

```java
Die myDie = new Die();
int result = myDie.roll(); // OK
myDie.cheat(6);           // not allowed!
```