RandomGenerator

```
import acm.program.*;
import acm.util.*;

public class SimpleRandom extends ConsoleProgram {


  public void run() {
     // Will fill in shortly
  }

  /* Private instance variables */
  private RandomGenerator rgen =
                  RandomGenerator.getInstance();
}
```

Methods to Generate Random Values

The **`RandomGenerator`** class defines the following methods:

`int nextInt(int low, int high)` Returns a random **`int`** between **`low`** and **`high`**, inclusive.
`int nextInt(int n)` Returns a random **`int`** between 0 and **`n`** - 1.
`double nextDouble(double low, double high)` Returns a random **`double`** *d* in the range **`low`** $\leq d <$ **`high`**.
`double nextDouble()` Returns a random **`double`** *d* in the range $0 \leq d < 1$.
`boolean nextBoolean()` Returns a random **`boolean`** value, which is **`true`** 50 percent of the time.
`boolean nextBoolean(double p)` Returns a random **`boolean`**, which is **`true`** with probability **`p`**, where $0 \leq$ **`p`** ≤ 1.
`Color nextColor()` Returns a random color.

Simple Random Example

```
import acm.program.*;
import acm.util.*;

public class RollDice extends ConsoleProgram {

  /* Constant -- Number of sides on each die */
  private static final int NUM_SIDES = 6;

  public void run() {
     int numRolls = readInt("Number of rolls: ");
     for (int i = 0; i < numRolls; i++) {
          int roll = rgen.nextInt(1, NUM_SIDES);
          println("You rolled: " + roll);
     }
  }

  /* Private instance variable */
  private RandomGenerator rgen =
                    RandomGenerator.getInstance();
}
```