

# MiscRandom

**Inherits From:** NSObject  
**Declared In:** MiscRandom.h

## Class Description

The MiscRandom class provides services for random number generation and die rolling. It implements its own random number generator with a cycle length of 8.8 trillion.

The algorithm used by the MiscRandom class is that given in the article: *<sup>a</sup>A Higly Random Random±Number Generator<sup>o</sup>* by T.A. Elkins Computer Language, Volume 6, Number 12 (December 1989), Pages 59-65  
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## Method Types

Initializing	<ul style="list-style-type: none"> <li>- init</li> <li>- initSeeds:::</li> </ul>
Determining the seeds	<ul style="list-style-type: none"> <li>- newSeeds</li> <li>- setSeeds:::</li> <li>- getSeeds:::</li> </ul>
Asking random numbers	<ul style="list-style-type: none"> <li>- rand</li> <li>- randMax:</li> <li>- randMin:max:</li> <li>- percent</li> <li>- rollDie:</li> <li>- roll:die:</li> <li>- rollBest:of:die:</li> </ul>

## Instance Methods

### **getSeeds:::**

- **getSeeds**:(int \*)s1 :(int \*)s2 :(int \*)s3

Puts the values of the seeds into the integer variables pointed to.

### **init**

- **init**

Initializes the Random with seeds from the milliseconds count of the system clock (uses **newSeeds**).

**initSeeds:::**

- **initSeeds**:(int)s1 :(int)s2 :(int)s3

Initializes the Random with the seeds given (uses **setSeeds:::**).

**newSeeds**

- **newSeeds**

Sets the seeds from the milliseconds count of the system clock.

**percent**

- (float) **percent**

Returns a float in the range [0.0, 1.0].

**rand**

- (int)**rand**

Returns an int in the range [0, 32767].

**randMax:**

- (int)**randMax**:(int)*max*

Returns an int in the range  $[0, \text{max}]$ .

**randMin:max:**

- (int)**randMin**:(int)*min* **max**:(int)*max*

Returns an int in the range  $[\text{min}, \text{max}]$ .

**roll:die:**

- (int)**roll**:(int)*numRolls* **die**:(int)*numSides*

Returns an int in the range  $[\text{numRolls}, \text{numRolls} * \text{numSides}]$

**rollBest:of:die:**

- (int)**rollBest**:(int)*numWanted* **of**:(int)*numRolls* **die**:(int)*numSides*

Returns the sum of the best *numWanted* rolls.

**rollDie:**

- (int)**rollDie**:(int)*numSides*

Returns an int in the range  $[1, \text{numSides}]$ .

**setSeeds:::**

- **setSeeds**:(int)s1 :(int)s2 :(int)s3

Sets the seeds to the values given.