

# 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	- init - initSeeds:::
Determining the seeds	- newSeeds - setSeeds::: - getSeeds:::
Asking random numbers	- rand - randMax: - randMin:max: - percent - rollDie: - roll:die: - rollBest:of:die:

## 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, *max*].

**randMin:max:**

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

Returns an int in the range [*min*, *max*].

**roll:die:**

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

Returns an int in the range [*numRolls*, *numRolls* \* *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, *numSides*].

**setSeeds:::**

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

Sets the seeds to the values given.