

MATH PRB (Probability) Operations

MATH PRB Menu To display the MATH PRB menu, press $\boxed{\text{MATH}}$ $\boxed{4}$.

MATH	NUM	CPX	PRB
1:	rand		Random-number generator
2:	nPr		Number of permutations
3:	nCr		Number of combinations
4:	!		Factorial
5:	randInt(Random-integer generator
6:	randNorm(Random # from Normal distribution
7:	randBin(Random # from Binomial distribution

rand

rand (random number) generates and returns one or more random numbers > 0 and < 1 . To generate a list of random-numbers, specify an integer > 1 for *numtrials* (number of trials). The default for *numtrials* is 1.

rand[(*numtrials*)]

Tip: To generate random numbers beyond the range of 0 to 1, you can include **rand** in an expression. For example, **rand*5** generates a random number > 0 and < 5 .

With each **rand** execution, the TI-83 generates the same random-number sequence for a given seed value. The TI-83 factory-set seed value for **rand** is **0**. To generate a different random-number sequence, store any nonzero seed value to **rand**. To restore the factory-set seed value, store **0** to **rand** or reset the defaults (Chapter 18).

Note: The seed value also affects **randInt**(, **randNorm**(, and **randBin**(instructions (page 2-22).

```
rand
.1272157551
.2646513087
1+rand      1
rand(3)
(.7455607728 .8...
```