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1  from math import floor
2  from random import gauss
3
4  def gauss_int(a, b):
5      n = b + 1
6      while n > b or n < a:
7          n = floor(gauss(b, (b-a)))
8      return n
9
10 if __name__ == '__main__':
11     count = [0] * 39
12     for i in range(1000000):
13         count[gauss_int(0, 38)] += 1
14     print(count)
15
16 -----
17
18
19 """This is the standard Python 3.6 implementation of choices """
20
21 from random import random
22 import itertools as _itertools
23 import bisect as _bisect
24
25 def choices(population, weights=None, *, cum_weights=None, k=1):
26     """Return a k sized list of population elements chosen with replacement.
27
28     If the relative weights or cumulative weights are not specified,
29     the selections are made with equal probability.
30
31     """
32     if cum_weights is None:
33         if weights is None:
34             _int = int
35             total = len(population)
36             return [population[_int(random() * total)] for i in range(k)]
37         cum_weights = list(_itertools.accumulate(weights))
38     elif weights is not None:
39         raise TypeError('Cannot specify both weights and cumulative weights ')
40     if len(cum_weights) != len(population):
41         raise ValueError('The number of weights does not match the population ')
42     bisect = _bisect.bisect
43     total = cum_weights[-1]
44     return [population[bisect(cum_weights, random() * total)] for i in range(k)]

```