

Assignment4. The deadline is 23:59:59, August 30th, 2017.

Random parking: Given a curb of length n , output how many cars, on average, can park on the curb.

Sample input and output: Your output should be similar to the sample output, but it is ok and natural if they are slightly different.

```
5
3.48535
6
4.23423
7
4.98229
8
5.72865
100
74.5155
300
224.033
```

An example of parking: Here we have a curb of length five, and four cars park on the curb.



Tips:

- The problem could be solved in two steps:
 1. Simulate parking randomly. This step you may need to write a *recursive random* function which park cars on a curb randomly as much as possible, i.e., until there is no space for another car to park, and return the number of cars.
 2. Run the first step a large number of times, and output the average number of cars that could park.
- Here is a helper function for generating a random float number between fMin and fMax.

```
double randomReal(double fMin, double fMax)
{
    double f = (double)rand() / RAND_MAX;
    return fMin + f * (fMax - fMin);
}
```

rand() is a c++ standard function which returns a pseudo-random integral number in the range between 0 and RAND_MAX. <http://www.cplusplus.com/reference/cstdlib/rand/>