Problem H. Generator

Input file:	*standard input*
Output file:	*standard output*
Time limit:	1 second
Memory limit:	256 mebibytes

Consider next algorithm, which generates random prime number between 2 and N:

1. Choose some random integer x from the range $[2, N]$. For all $N - 1$ integers the probability to be selected is the same.
2. Check if x is prime. If yes, go to step 3, else go to step 1.
3. Return x as the result.

To check if x is prime, the following algorithm is used:

1. Let $d := 2$.
2. If d is greater than square root from x, i.e. $d^2 > x$, then terminate the process and tell that x is prime. Else go to step 3.
3. Check, if x is divisible by d. If yes, then terminate the process and tell that x is not a prime. Else let $d := d + 1$ and go to step 2.

For a given N, find out expected numbers of divisions at step 3 in second algorithm.

Input

First line contains one integer T ($1 \le T \le 10^5$) — number of testcases.

Each testcase is placed on the separate line and consists of one integer N ($2 \le N \le 10^7$).

Output

For each test case, print the answer in the form of irreducible fraction.

Example

standard input	standard output
6 2 3 4 5 6 10	0/1 0/1 1/2 2/3 1/1 2/1