MLE for Geom. Distr. of sample size n = 3000

k	Observed frequency	Predicted frequency
1	947	992.06
2	685	664
3	470	444.42
4	313	297.46
5	200	199.09
6	128	133.25
7	88	89.19
8	57	59.7
9	32	39.95
10	30	26.74
11	17	17.9
12	11	11.98
13	5	8.02
14	4	5.37
15	3	3.59
16	5	2.4
18	1	1.61
19	1	1.08
20	2	0.72
23	1	0.48

Real p = 0.3333 and MLE for p = 0.3307