MOVIE

0.5s

During a rare holiday, Sunflower''s class organized a group movie trip. However, due to the large number of people during the holiday season, buying tickets for the whole class to watch the same screening is very difficult. Finally, the class found a movie theater hidden in a deserted alley. This cinema has a unique seating allocation system, described as follows:

1. The theater has K seats numbered from 1... K. After purchasing tickets, each person is randomly assigned a seat. Specifically, a positive integer L is chosen with equal probability from 1…K.
2. If L ≤ K and seat L is available, that seat will be assigned to that person. Otherwise, L is increased by one and the process repeats.
3. If there are no L seats available in the second step, the person must stand to watch the movie — also known as a standing ticket.

Sunflower's class has N students (including Sunflower). As a math enthusiast, Sunflower wanted to know the probability that every student in the class could get a seat.

INPUT

The first line contains the number of tests T (T ≤ 50).

Each of the next T lines contain two positive integers N and K (N, K ≤ 200).

OUTPUT

For each test, print on online two numbers A and B, indicating that the answer is A/B. The answer must be expressed as a reduced fraction.

Sample Input	Sample Output
40	1 1
1 6	1 1
1 7	1 1
1 8	1 1
1 9	1 1
1 10	35 36
2 6	48 49
2 7	63 64
2 8	80 81
2 9	99 100
2 10	49 54
3 6	320 343
3 7	243 256
3 8	700 729
3 9	121 125
3 10	343 432
4 6	2048 2401
4 7	3645 4096
4 8	2000 2187
4 9	9317 10000
4 10	2401 3888
5 6	12288 16807
5 7	6561 8192

5 8	50000 59049
5 9	43923 50000
5 10	16807 46656
6 6	65536 117649
6 7	177147 262144
6 8	400000 531441
6 9	161051 200000
6 10	262144 823543
7 7	531441 1048576
7 8	1000000 1594323
7 9	1771561 2500000
7 10	4782969
8 8	16777216
8 9	20000000
8 10	43046721
9 9	58461513
9 10	100000000
10 10	100000000
	387420489
	214358881
	500000000
	2357947691
	10000000000