```
 1    #include<stdio.h>
 2
 3    int nf(int a, int b) {
 4      if (a == 1) return 0;
 5      return (nf(a - 1, b) + b) % a;
 6    }
 7
 8    int main(void) {
 9      int n, k, nc, i;
10      scanf("%d", &nc);
11      for (i = 1; i <= nc; i++) {
12        scanf("%d %d", &n, &k);
13        printf("Case %d: %d\n", i, nf(n, k) + 1);
14      }
15      return 0;
16    }
```