powers of 0 through $n-1$, modulo n

Format is: first row is the modulus followed by list of exponents
Remaining rows are the base, followed by the powers modulo n

2	0	1	2
0	1	0	0
1	1	1	1

3	0	1	2	3
0	1	0	0	0
1	1	1	1	1
2	1	2	1	2

4	0	1	2	3	4
0	1	0	0	0	0
1	1	1	1	1	1
2	1	2	0	0	0
3	1	3	1	3	1

5	0	1	2	3	4	5
0	1	0	0	0	0	0
1	1	1	1	1	1	1
2	1	2	4	3	1	2
3	1	3	4	2	1	3
4	1	4	1	4	1	4

6	0	1	2	3	4	5	6
0	1	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	1	2	4	2	4	2	4
3	1	3	3	3	3	3	3
4	1	4	4	4	4	4	4
5	1	5	1	5	1	5	1

7	0	1	2	3	4	5	6	7
0	1	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1
2	1	2	4	1	2	4	1	2
3	1	3	2	6	4	5	1	3
4	1	4	2	1	4	2	1	4
5	1	5	4	6	2	3	1	5
6	1	6	1	6	1	6	1	6

8	0	1	2	3	4	5	6	7	8
0	1	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
2	1	2	4	0	0	0	0	0	0
3	1	3	1	3	1	3	1	3	1
4	1	4	0	0	0	0	0	0	0
5	1	5	1	5	1	5	1	5	1
6	1	6	4	0	0	0	0	0	0
7	1	7	1	7	1	7	1	7	1

9	0	1	2	3	4	5	6	7	8	9
0	1	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1
2	1	2	4	8	7	5	1	2	4	8
3	1	3	0	0	0	0	0	0	0	0
4	1	4	7	1	4	7	1	4	7	1
5	1	5	7	8	4	2	1	5	7	8
6	1	6	0	0	0	0	0	0	0	0
7	1	7	4	1	7	4	1	7	4	1
8	1	8	1	8	1	8	1	8	1	8

10	0	1	2	3	4	5	6	7	8	9	10
0	1	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	4	8	6	2	4	8	6	2	4
3	1	3	9	7	1	3	9	7	1	3	9
4	1	4	6	4	6	4	6	4	6	4	6
5	1	5	5	5	5	5	5	5	5	5	5
6	1	6	6	6	6	6	6	6	6	6	6
7	1	7	9	3	1	7	9	3	1	7	9
8	1	8	4	2	6	8	4	2	6	8	4
9	1	9	1	9	1	9	1	9	1	9	1

11	0	1	2	3	4	5	6	7	8	9	10	11
0	1	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	4	8	5	10	9	7	3	6	1	2
3	1	3	9	5	4	1	3	9	5	4	1	3
4	1	4	5	9	3	1	4	5	9	3	1	4
5	1	5	3	4	9	1	5	3	4	9	1	5
6	1	6	3	7	9	10	5	8	4	2	1	6
7	1	7	5	2	3	10	4	6	9	8	1	7
8	1	8	9	6	4	10	3	2	5	7	1	8
9	1	9	4	3	5	1	9	4	3	5	1	9
10	1	10	1	10	1	10	1	10	1	10	1	10

12	0	1	2	3	4	5	6	7	8	9	10	11	12
0	1	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	4	8	4	8	4	8	4	8	4	8	4
3	1	3	9	3	9	3	9	3	9	3	9	3	9
4	1	4	4	4	4	4	4	4	4	4	4	4	4
5	1	5	1	5	1	5	1	5	1	5	1	5	1
6	1	6	0	0	0	0	0	0	0	0	0	0	0
7	1	7	1	7	1	7	1	7	1	7	1	7	1
8	1	8	4	8	4	8	4	8	4	8	4	8	4
9	1	9	9	9	9	9	9	9	9	9	9	9	9
10	1	10	4	4	4	4	4	4	4	4	4	4	4
11	1	11	1	11	1	11	1	11	1	11	1	11	1

13	0	1	2	3	4	5	6	7	8	9	10	11	12	13
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	4	8	3	6	12	11	9	5	10	7	1	2
3	1	3	9	1	3	9	1	3	9	1	3	9	1	3
4	1	4	3	12	9	10	1	4	3	12	9	10	1	4
5	1	5	12	8	1	5	12	8	1	5	12	8	1	5
6	1	6	10	8	9	2	12	7	3	5	4	11	1	6
7	1	7	10	5	9	11	12	6	3	8	4	2	1	7
8	1	8	12	5	1	8	12	5	1	8	12	5	1	8
9	1	9	3	1	9	3	1	9	3	1	9	3	1	9
10	1	10	9	12	3	4	1	10	9	12	3	4	1	10
11	1	11	4	5	3	7	12	2	9	8	10	6	1	11
12	1	12	1	12	1	12	1	12	1	12	1	12	1	12

14	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	4	8	2	4	8	2	4	8	2	4	8	2	4
3	1	3	9	13	11	5	1	3	9	13	11	5	1	3	9
4	1	4	2	8	4	2	8	4	2	8	4	2	8	4	2
5	1	5	11	13	9	3	1	5	11	13	9	3	1	5	11
6	1	6	8	6	8	6	8	6	8	6	8	6	8	6	8
7	1	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	1	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	1	9	11	1	9	11	1	9	11	1	9	11	1	9	11
10	1	10	2	6	4	12	8	10	2	6	4	12	8	10	2
11	1	11	9	1	11	9	1	11	9	1	11	9	1	11	9
12	1	12	4	6	2	10	8	12	4	6	2	10	8	12	4
13	1	13	1	13	1	13	1	13	1	13	1	13	1	13	1

15	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	4	8	1	2	4	8	1	2	4	8	1	2	4	8
3	1	3	9	12	6	3	9	12	6	3	9	12	6	3	9	12
4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
5	1	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5
6	1	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	1	7	4	13	1	7	4	13	1	7	4	13	1	7	4	13
8	1	8	4	2	1	8	4	2	1	8	4	2	1	8	4	2
9	1	9	6	9	6	9	6	9	6	9	6	9	6	9	6	9
10	1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11	1	11	1	11	1	11	1	11	1	11	1	11	1	11	1	11
12	1	12	9	3	6	12	9	3	6	12	9	3	6	12	9	3
13	1	13	4	7	1	13	4	7	1	13	4	7	1	13	4	7
14	1	14	1	14	1	14	1	14	1	14	1	14	1	14	1	14

16	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	4	8	0	0	0	0	0	0	0	0	0	0	0	0	0
3	1	3	9	11	1	3	9	11	1	3	9	11	1	3	9	11	1
4	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	1	5	9	13	1	5	9	13	1	5	9	13	1	5	9	13	1
6	1	6	4	8	0	0	0	0	0	0	0	0	0	0	0	0	0
7	1	7	1	7	1	7	1	7	1	7	1	7	1	7	1	7	1
8	1	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	1	9	1	9	1	9	1	9	1	9	1	9	1	9	1	9	1
10	1	10	4	8	0	0	0	0	0	0	0	0	0	0	0	0	0
11	1	11	9	3	1	11	9	3	1	11	9	3	1	11	9	3	1
12	1	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	1	13	9	5	1	13	9	5	1	13	9	5	1	13	9	5	1
14	1	14	4	8	0	0	0	0	0	0	0	0	0	0	0	0	0
15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1

17	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	4	8	16	15	13	9	1	2	4	8	16	15	13	9	1	2
3	1	3	9	10	13	5	15	11	16	14	8	7	4	12	2	6	1	3
4	1	4	16	13	1	4	16	13	1	4	16	13	1	4	16	13	1	4
5	1	5	8	6	13	14	2	10	16	12	9	11	4	3	15	7	1	5
6	1	6	2	12	4	7	8	14	16	11	15	5	13	10	9	3	1	6
7	1	7	15	3	4	11	9	12	16	10	2	14	13	6	8	5	1	7
8	1	8	13	2	16	9	4	15	1	8	13	2	16	9	4	15	1	8
9	1	9	13	15	16	8	4	2	1	9	13	15	16	8	4	2	1	9
10	1	10	15	14	4	6	9	5	16	7	2	3	13	11	8	12	1	10
11	1	11	2	5	4	10	8	3	16	6	15	12	13	7	9	14	1	11
12	1	12	8	11	13	3	2	7	16	5	9	6	4	14	15	10	1	12
13	1	13	16	4	1	13	16	4	1	13	16	4	1	13	16	4	1	13
14	1	14	9	7	13	12	15	6	16	3	8	10	4	5	2	11	1	14
15	1	15	4	9	16	2	13	8	1	15	4	9	16	2	13	8	1	15
16	1	16	1	16	1	16	1	16	1	16	1	16	1	16	1	16	1	16

18	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	4	8	16	14	10	2	4	8	16	14	10	2	4	8	16	14	10
3	1	3	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
4	1	4	16	10	4	16	10	4	16	10	4	16	10	4	16	10	4	16	10
5	1	5	7	17	13	11	1	5	7	17	13	11	1	5	7	17	13	11	1
6	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	1	7	13	1	7	13	1	7	13	1	7	13	1	7	13	1	7	13	1
8	1	8	10	8	10	8	10	8	10	8	10	8	10	8	10	8	10	8	10
9	1	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
10	1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11	1	11	13	17	7	5	1	11	13	17	7	5	1	11	13	17	7	5	1
12	1	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	1	13	7	1	13	7	1	13	7	1	13	7	1	13	7	1	13	7	1
14	1	14	16	8	4	2	10	14	16	8	4	2	10	14	16	8	4	2	10
15	1	15	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
16	1	16	4	10	16	4	10	16	4	10	16	4	10	16	4	10	16	4	10
17	1	17	1	17	1	17	1	17	1	17	1	17	1	17	1	17	1	17	1

19	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	4	8	16	13	7	14	9	18	17	15	11	3	6	12	5	10	1	2
3	1	3	9	8	5	15	7	2	6	18	16	10	11	14	4	12	17	13	1	3
4	1	4	16	7	9	17	11	6	5	1	4	16	7	9	17	11	6	5	1	4
5	1	5	6	11	17	9	7	16	4	1	5	6	11	17	9	7	16	4	1	5
6	1	6	17	7	4	5	11	9	16	1	6	17	7	4	5	11	9	16	1	6
7	1	7	11	1	7	11	1	7	11	1	7	11	1	7	11	1	7	11	1	7
8	1	8	7	18	11	12	1	8	7	18	11	12	1	8	7	18	11	12	1	8
9	1	9	5	7	6	16	11	4	17	1	9	5	7	6	16	11	4	17	1	9
10	1	10	5	12	6	3	11	15	17	18	9	14	7	13	16	8	4	2	1	10
11	1	11	7	1	11	7	1	11	7	1	11	7	1	11	7	1	11	7	1	11
12	1	12	11	18	7	8	1	12	11	18	7	8	1	12	11	18	7	8	1	12
13	1	13	17	12	4	14	11	10	16	18	6	2	7	15	5	8	9	3	1	13
14	1	14	6	8	17	10	7	3	4	18	5	13	11	2	9	12	16	15	1	14
15	1	15	16	12	9	2	11	13	5	18	4	3	7	10	17	8	6	14	1	15
16	1	16	9	11	5	4	7	17	6	1	16	9	11	5	4	7	17	6	1	16
17	1	17	4	11	16	6	7	5	9	1	17	4	11	16	6	7	5	9	1	17
18	1	18	1	18	1	18	1	18	1	18	1	18	1	18	1	18	1	18	1	18

20	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	4	8	16	12	4	8	16	12	4	8	16	12	4	8	16	12	4	8	16
3	1	3	9	7	1	3	9	7	1	3	9	7	1	3	9	7	1	3	9	7	1
4	1	4	16	4	16	4	16	4	16	4	16	4	16	4	16	4	16	4	16	4	16
5	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	1	6	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
7	1	7	9	3	1	7	9	3	1	7	9	3	1	7	9	3	1	7	9	3	1
8	1	8	4	12	16	8	4	12	16	8	4	12	16	8	4	12	16	8	4	12	16
9	1	9	1	9	1	9	1	9	1	9	1	9	1	9	1	9	1	9	1	9	1
10	1	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	1	11	1	11	1	11	1	11	1	11	1	11	1	11	1	11	1	11	1	11	1
12	1	12	4	8	16	12	4	8	16	12	4	8	16	12	4	8	16	12	4	8	16
13	1	13	9	17	1	13	9	17	1	13	9	17	1	13	9	17	1	13	9	17	1
14	1	14	16	4	16	4	16	4	16	4	16	4	16	4	16	4	16	4	16	4	16
15	1	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5
16	1	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
17	1	17	9	13	1	17	9	13	1	17	9	13	1	17	9	13	1	17	9	13	1
18	1	18	4	12	16	8	4	12	16	8	4	12	16	8	4	12	16	8	4	12	16
19	1	19	1	19	1	19	1	19	1	19	1	19	1	19	1	19	1	19	1	19	1

21	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	4	8	16	11	1	2	4	8	16	11	1	2	4	8	16	11	1	2	4	8
3	1	3	9	6	18	12	15	3	9	6	18	12	15	3	9	6	18	12	15	3	9	6
4	1	4	16	1	4	16	1	4	16	1	4	16	1	4	16	1	4	16	1	4	16	1
5	1	5	4	20	16	17	1	5	4	20	16	17	1	5	4	20	16	17	1	5	4	20
6	1	6	15	6	15	6	15	6	15	6	15	6	15	6	15	6	15	6	15	6	15	6
7	1	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	1	8	1	8	1	8	1	8	1	8	1	8	1	8	1	8	1	8	1	8	1	8
9	1	9	18	15	9	18	15	9	18	15	9	18	15	9	18	15	9	18	15	9	18	15
10	1	10	16	13	4	19	1	10	16	13	4	19	1	10	16	13	4	19	1	10	16	13
11	1	11	16	8	4	2	1	11	16	8	4	2	1	11	16	8	4	2	1	11	16	8
12	1	12	18	6	9	3	15	12	18	6	9	3	15	12	18	6	9	3	15	12	18	6
13	1	13	1	13	1	13	1	13	1	13	1	13	1	13	1	13	1	13	1	13	1	13
14	1	14	7	14	7	14	7	14	7	14	7	14	7	14	7	14	7	14	7	14	7	14
15	1	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
16	1	16	4	1	16	4	1	16	4	1	16	4	1	16	4	1	16	4	1	16	4	1
17	1	17	16	20	4	5	1	17	16	20	4	5	1	17	16	20	4	5	1	17	16	20
18	1	18	9	15	18	9	15	18	9	15	18	9	15	18	9	15	18	9	15	18	9	15
19	1	19	4	13	16	10	1	19	4	13	16	10	1	19	4	13	16	10	1	19	4	13
20	1	20	1	20	1	20	1	20	1	20	1	20	1	20	1	20	1	20	1	20	1	20