

```

Inv := proc (r, x, m)
  local g := gcd(x, m);
  return  $\left( g \cdot \left( r \cdot \left( \left( \frac{x}{g} \right)^{-1} \bmod \frac{m}{g} \right) \bmod \frac{m}{g} \right) \right)$ ;
end:

```

```

Shuffle := proc (n, k)
  local m := k·n - 1, x, y;
  print("Shuffle ", m + 1, k);
  for x from 1 to m - 1 do
    y := Inv(1, x, m) :
    if x < y then print(x, y) fi:
  od:
  for x from 1 to m - 1 do
    y := Inv(k, x, m) :
    if x < y then print(x, y) fi:
  od:
end:

```

Shuffle(8, 2);

Shuffle(9, 3);

"Shuffle ", 16, 2

2, 8

6, 9

7, 13

1, 2

3, 6

4, 8

5, 10

7, 11

9, 12

13, 14

"Shuffle ", 27, 3

3, 9

4, 14

5, 21

6, 18

7, 15

8, 20

10, 16

11, 19

12, 22

17, 23

1, 3

2, 6

4, 16

5, 11

7, 19

10, 22

12, 14

15, 21

20, 24

23, 25

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