

```

 $a_n a_{n-1} \cdots a_1 \leftarrow 0 \ 0 \ \cdots \ 0$ 
 $f_n f_{n-1} \cdots f_1 \leftarrow n \ n-1 \ \cdots \ 1$ 
while  $f_1 < n$ 
     $j \leftarrow f_1$ 
     $f_1 \leftarrow 1$ 
    output( $j + \llbracket a_j \leq 1 \rrbracket \pmod{2}$ )
     $a_j \leftarrow a_j + 1$ 
    if  $a_j = n - j$ 
         $a_j \leftarrow 0$ 
         $f_j \leftarrow f_{j+1}$ 
         $f_{j+1} \leftarrow j + 1$ 
    end
end
output( $n \pmod{2}$ )

```