

1) a) $n=11$
 $m=7$
 $h(b) = (n \cdot b) \% m$

OCHAIWING

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

P: $(11 \cdot 16) \% 7 = 1$

O: $(11 \cdot 15) \% 7 = 4$

D: $(11 \cdot 4) \% 7 = 2$

A: $(11 \cdot 0) \% 7 = 0$

T: $(11 \cdot 20) \% 7 = 3$

E: $(11 \cdot 5) \% 7 = 6$

K: $(11 \cdot 11) \% 7 = 2$

0	1	2	3	4	5	6
A	P	D	T	O		E

b) \rightarrow V PERLOGI NA KANCU

c) $h_1 = h \% m$
 $h_2 = \left\lfloor \frac{h}{m} \right\rfloor \% m$

EGE = 7, 9, 12, 11, 3, 17, 1, 23, 10, 8

PORAČUNAMO

	h_1	h_2
7	2	1
9	4	1
12	2	2
11	1	2
3	3	0
17	2	3
1	1	0
23	3	4
10	0	2
8	3	1

	T_1	T_2
0		
1		
2	7	
3		
4	9	

	T_1	T_2
0		
1	11	7
2	12	
3	3	
4	9	

	T_1	T_2
0		
1	11	7
2	12	12
3	3	
4	9	

	T_1	T_2
0		
1	1	7
2	12	11
3	3	17
4	9	

23

\rightarrow

	T_1	T_2
0	10	3
1	1	7
2	12	11
3	23	17
4	9	

\rightarrow

	T_1	T_2
0	10	3
1	1	7
2	12	11
3	8	17
4	9	23

```

1 def getPrimes(n):
2     primes = [2 ,3 ,5 ,7 ,11 ,13 ,17 ,19]
3     for i in range(20 ,n):
4         for j in range(2, i -1):
5             if i % j == 0:
6                 break
7         else:
8             primes.append(i)
9     return primes
10
11 def get():
12     elements = [16, 15, 4, 0, 20, 5, 11]
13     for m in range(7, 24):
14         for p in getPrimes(1000):
15             tempArray = [None] * m
16             broke = False
17             for k in elements:
18                 index = (p * k) % m
19                 if (tempArray[index] is None):
20                     tempArray[index] = k
21                 else:
22                     broke = True
23                     break
24             if not broke:
25                 print(str(m) + " " + str(p))
26                 return
27
28 get()
29 ## VRNE m = 13, p = 2

```