

Memo No. _____

Date / /

Ex 1

2 desirable properties of a hash function

- Uniformly distributed (phân bố đều) across its output space
- Deterministic (tất định)

Ex 2 $h(i) = (2i+5) \% 11$

Keys: 12, 44, 13, 88, 23, 94, 11, 39, 20, 16, 5

a)	0	1	2	3	4	5	6	7	8	9	10
		↑			↑	↑	↑	↑		↑	
		20			16	44	94	12		13	
					↑	↑	↑	↑			
					5	88	39	23			
						↑					
						11					

b)	0	1	2	3	4	5	6	7	8	9	10
	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
	11	39	20	5	16	44	88	12	23	13	94

Ex 3 $h(i) = (i+3) \% 17$

Keys: 1, 3, 18, 8, 23, 35, 11, 36, 20, 16

a)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			↑		↑	↑	↑			↑		↑				↑	
			16		1	36	3			23		8				11	
					↑	↑	↑										
					18		20										
					↑												
					35												

b)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			↑		↑	↑	↑	↑	↑	↑	↑	↑			↑		
			16		1	18	3	35	36	23	20	8			11		