

a) Insira os seguintes elementos: 2, 15, 6, 12, 9, 14, 13, 25, 18, 20, 23, 5, 3, 1, 38, 45, 50 em uma tabela hash de tamanho 13. Use listas encadeadas para fazer o tratamento de colisões.
Use a função de transformação $h(x) = x \% 13$.

$$h(x) = x \% 13$$

[0]

[1]

[2]

[3]

[4]

[5]

[6]

[7]

[8]

[9]

[10]

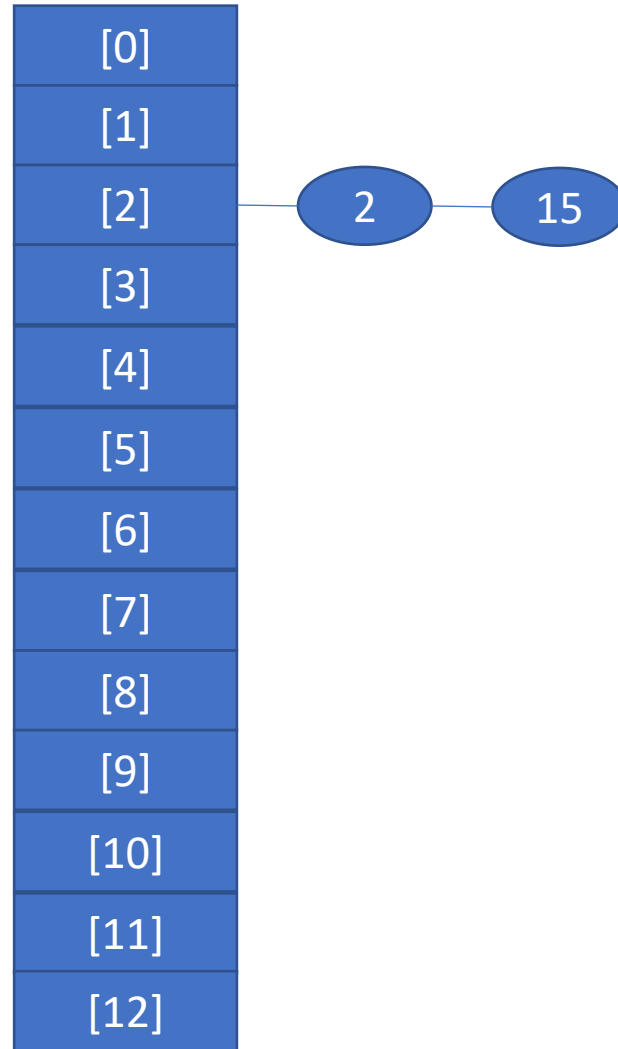
[11]

[12]

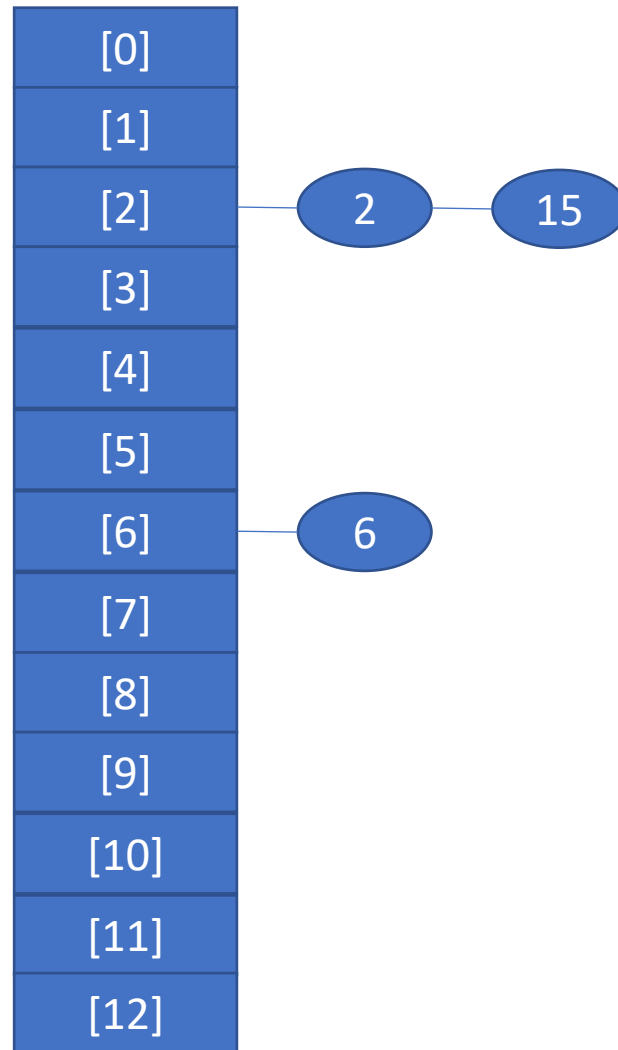
$$h(x) = x \% 13$$

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

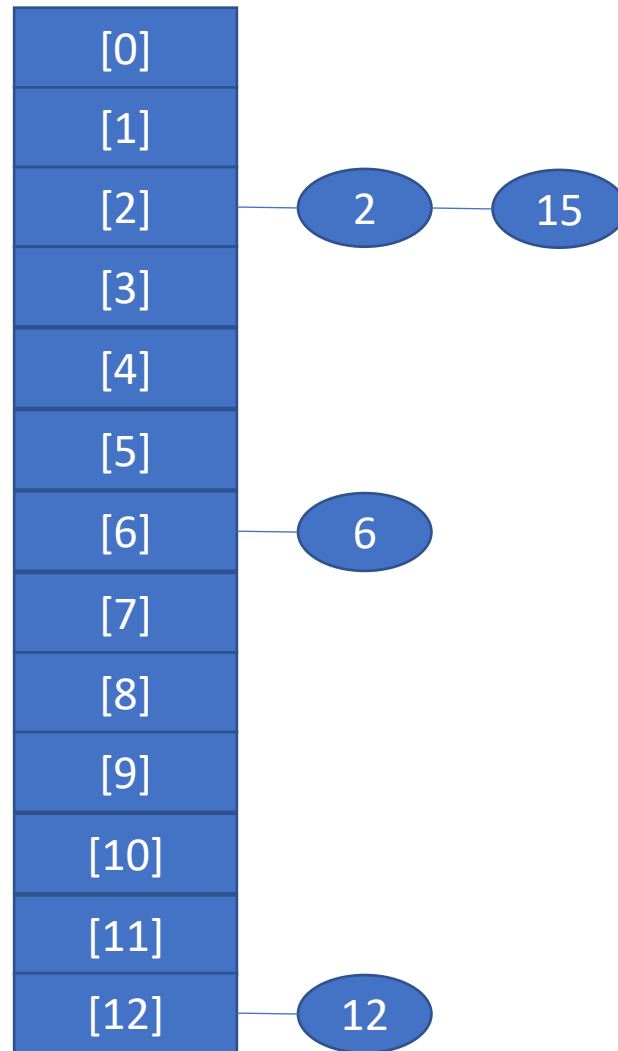
$$h(x) = x \% 13$$



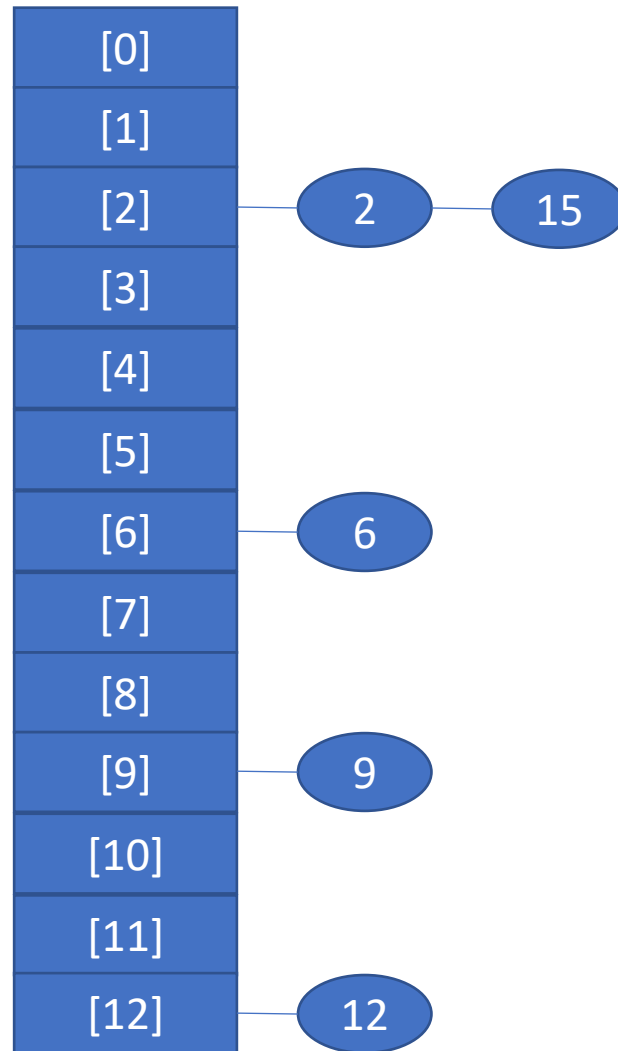
$$h(x) = x \% 13$$



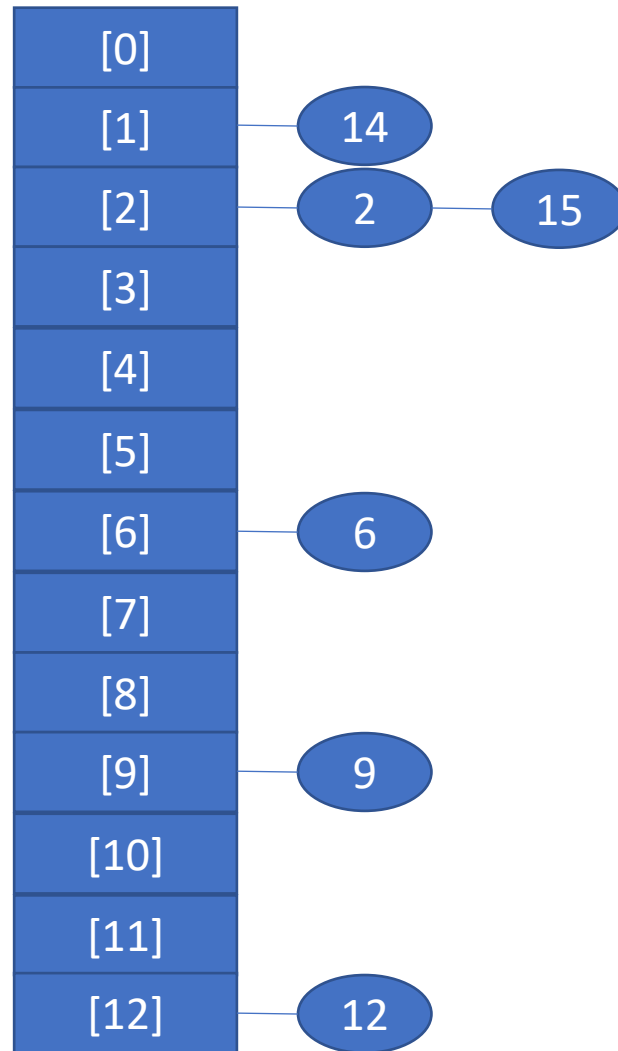
$$h(x) = x \% 13$$



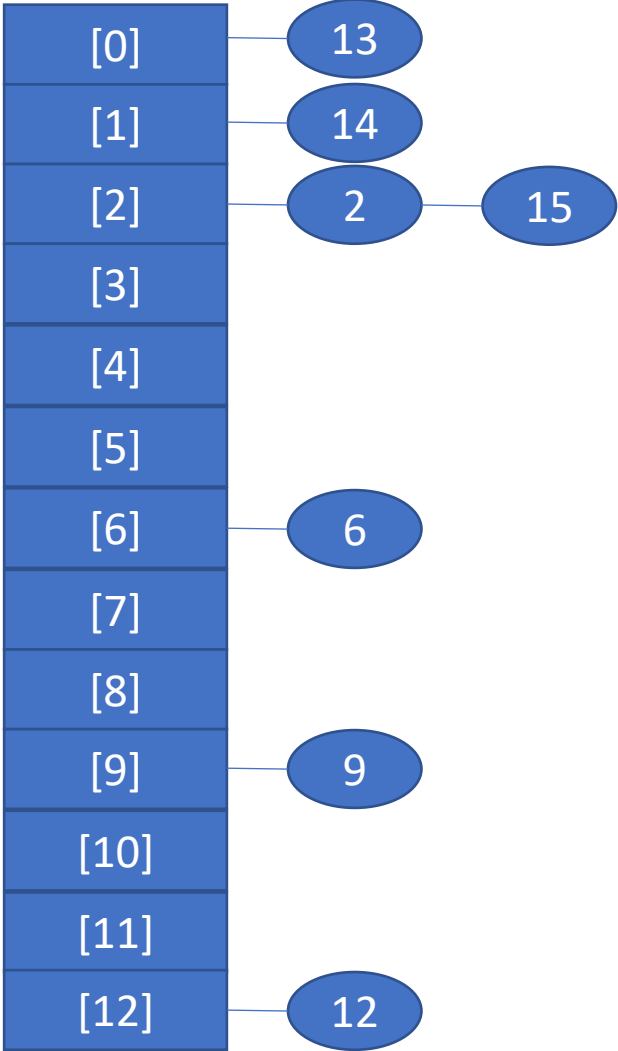
$$h(x) = x \% 13$$



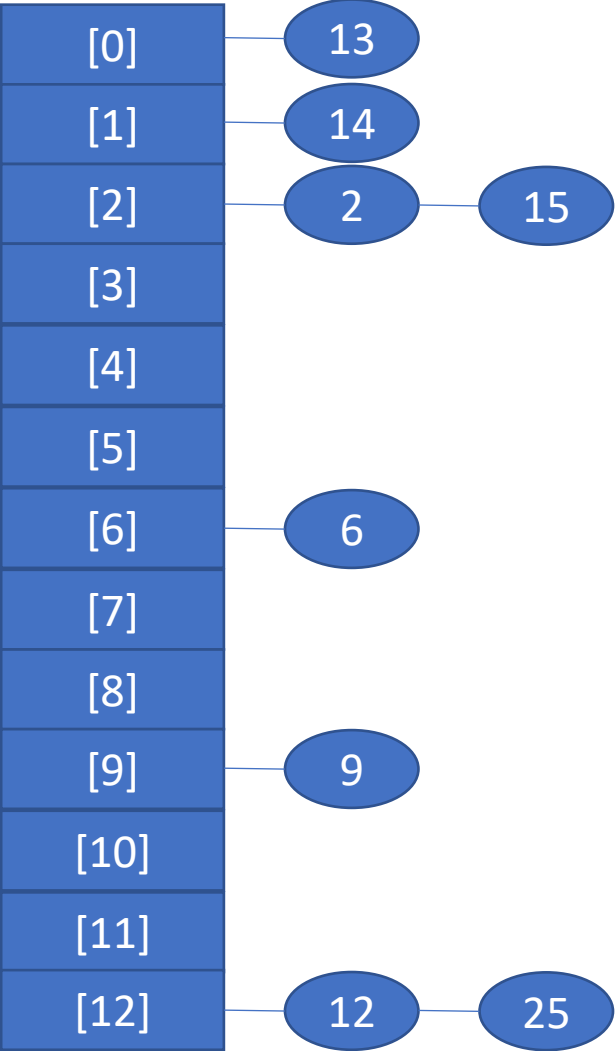
$$h(x) = x \% 13$$



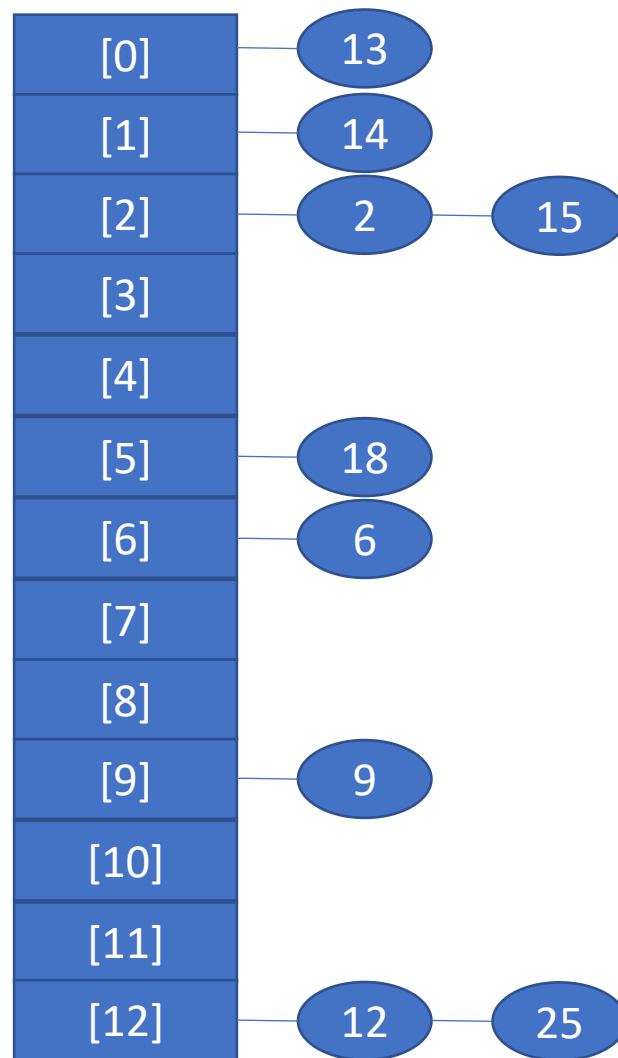
$h(x) = x \% 13$



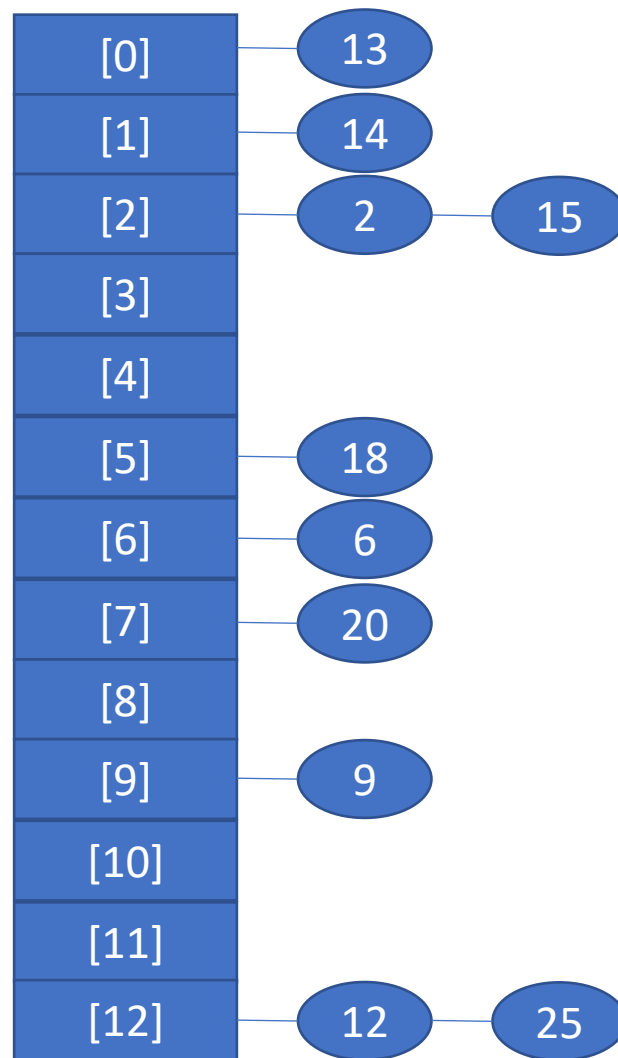
$h(x) = x \% 13$



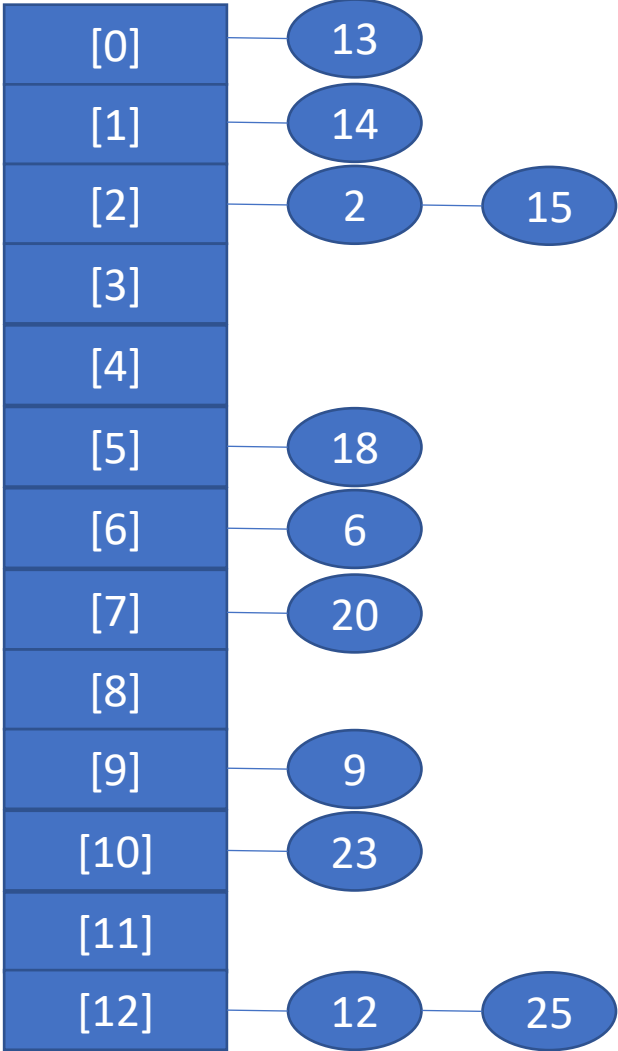
$$h(x) = x \% 13$$



$$h(x) = x \% 13$$



$h(x) = x \% 13$



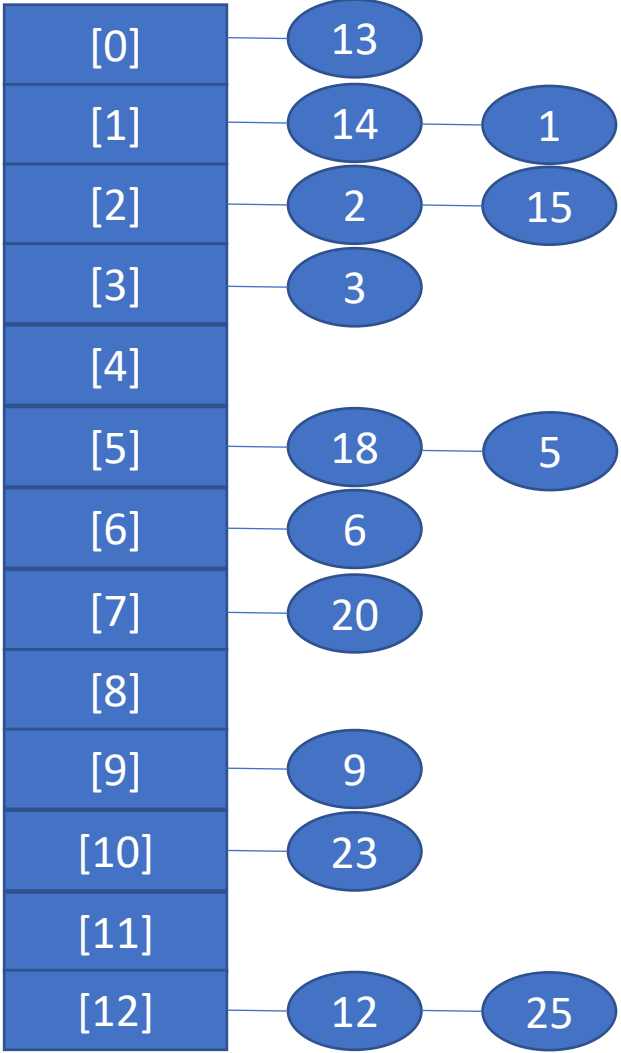
$$h(x) = x \% 13$$

[0]	13	
[1]	14	
[2]	2	15
[3]		
[4]		
[5]	18	5
[6]	6	
[7]	20	
[8]		
[9]	9	
[10]	23	
[11]		
[12]	12	25

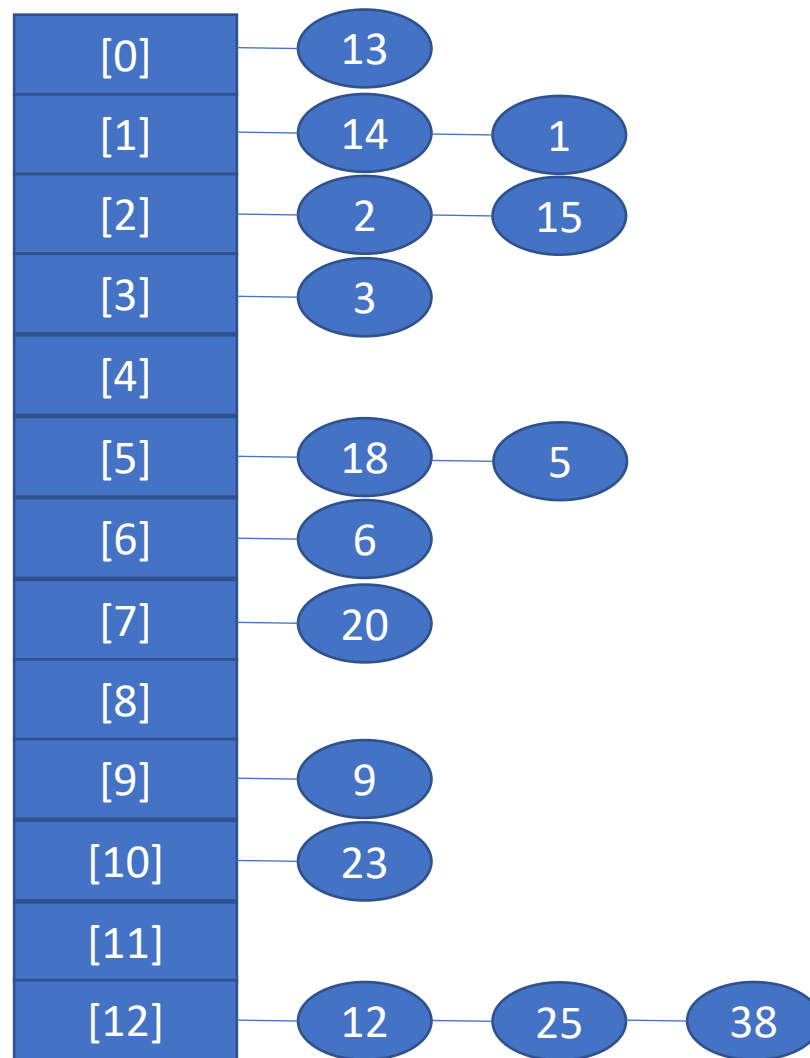
$$h(x) = x \% 13$$

[0]	13	
[1]	14	
[2]	2	15
[3]	3	
[4]		
[5]	18	5
[6]	6	
[7]	20	
[8]		
[9]	9	
[10]	23	
[11]		
[12]	12	25

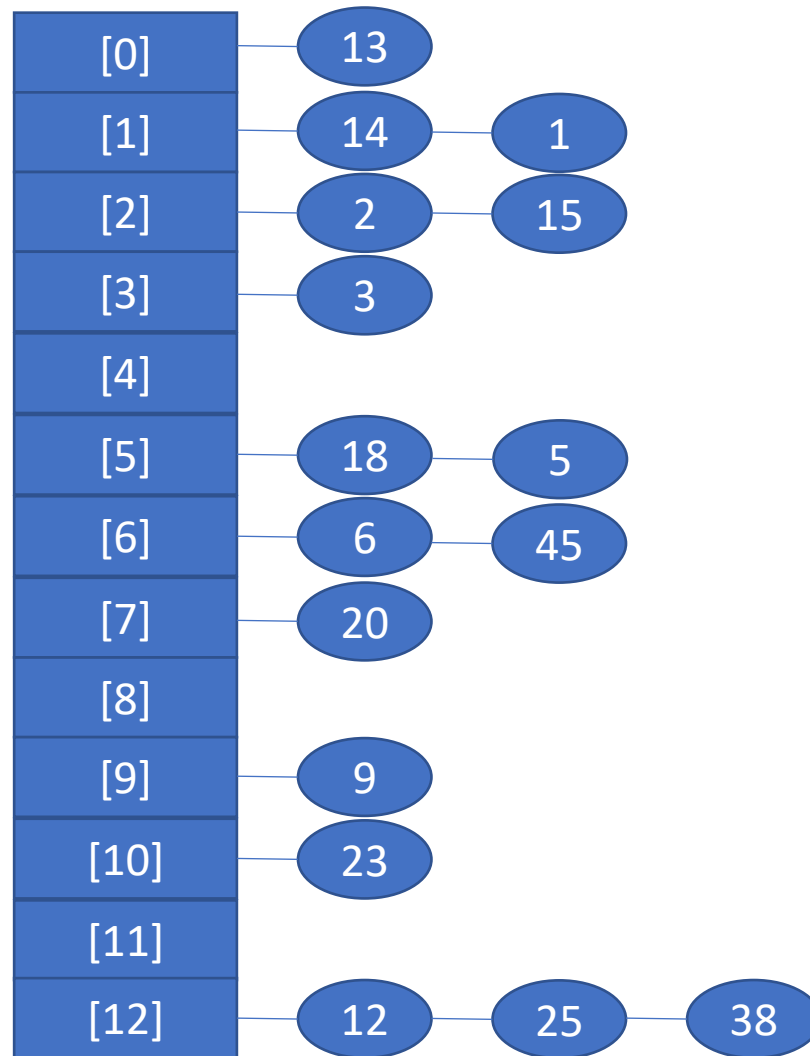
$h(x) = x \% 13$



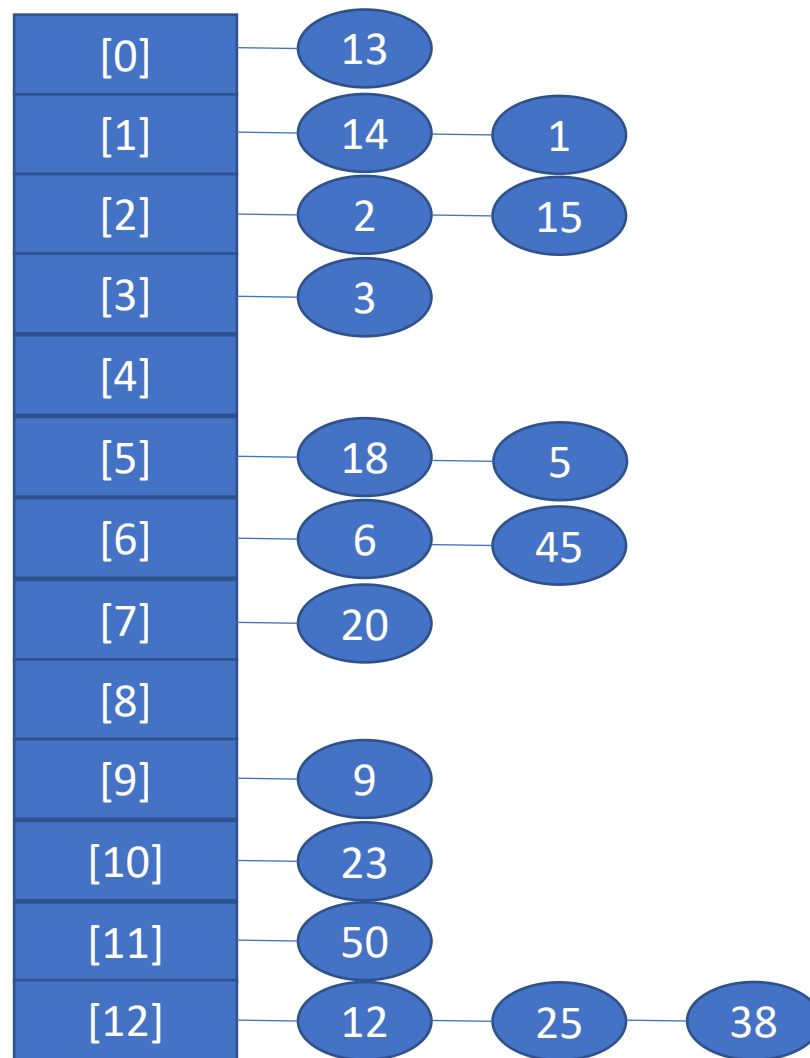
$$h(x) = x \% 13$$



$$h(x) = x \% 13$$



$$h(x) = x \% 13$$



b) Insira os seguintes elementos: 5, 3, 1, 38, 45, 50, 48, 8, 10, 11, 7, 4, 55, 60, 30, 32, 33 em uma tabela hash de tamanho 17. Use encadeamento aberto por meio de hash linear para o tratamento de colisões.
Use a função de transformação $h(x) = x \% 17$.

$$h(x) = x \% 17$$

[0]

[1]

[2]

[3]

[4]

[5]

[6]

[7]

[8]

[9]

[10]

[11]

[12]

[13]

[14]

[15]

[16]

$$h(x) = x \% 17$$

[0]

[1]

[2]

[3]

[4]

[5] - 5

[6]

[7]

[8]

[9]

[10]

[11]

[12]

[13]

[14]

[15]

[16]

$$h(x) = x \% 17$$

[0]

[1]

[2]

[3] - 3

[4]

[5] - 5

[6]

[7]

[8]

[9]

[10]

[11]

[12]

[13]

[14]

[15]

[16]

$$h(x) = x \% 17$$

[0]

[1] - 1

[2]

[3] - 3

[4]

[5] - 5

[6]

[7]

[8]

[9]

[10]

[11]

[12]

[13]

[14]

[15]

[16]

$$h(x) = x \% 17$$

[0]

[1] - 1

[2]

[3] - 3

[4] - 38

[5] - 5

[6]

[7]

[8]

[9]

[10]

[11]

[12]

[13]

[14]

[15]

[16]

$$h(x) = x \% 17$$

[0]

[1] - 1

[2]

[3] - 3

[4] - 38

[5] - 5

[6]

[7]

[8]

[9]

[10]

[11] - 45

[12]

[13]

[14]

[15]

[16]

$$h(x) = x \% 17$$

[0]

[1] - 1

[2]

[3] - 3

[4] - 38

[5] - 5

[6]

[7]

[8]

[9]

[10]

[11] - 45

[12]

[13]

[14]

[15]

[16] - 50

$$h(x) = x \% 17$$

[0]

[1] - 1

[2]

[3] - 3

[4] - 38

[5] - 5

[6]

[7]

[8]

[9]

[10]

[11] - 45

[12]

[13]

[14] - 48

[15]

[16] - 50

$$h(x) = x \% 17$$

[0]

[1] - 1

[2]

[3] - 3

[4] - 38

[5] - 5

[6]

[7]

[8] - 8

[9]

[10]

[11] - 45

[12]

[13]

[14] - 48

[15]

[16] - 50

$$h(x) = x \% 17$$

[0]

[1] - 1

[2]

[3] - 3

[4] - 38

[5] - 5

[6]

[7]

[8] - 8

[9]

[10] - 10

[11] - 45

[12]

[13]

[14] - 48

[15]

[16] - 50

$$h(x) = x \% 17$$

[0]

[1] - 1

[2]

[3] - 3

[4] - 38

[5] - 5

[6]

[7]

[8] - 8

[9]

[10] - 10

[11] - 45

[12] - 11

[13]

[14] - 48

[15]

[16] - 50

$$h(x) = x \% 17$$

[0]

[1] - 1

[2]

[3] - 3

[4] - 38

[5] - 5

[6]

[7] - 7

[8] - 8

[9]

[10] - 10

[11] - 45

[12] - 11

[13]

[14] - 48

[15]

[16] - 50

$$h(x) = x \% 17$$

[0]

[1] - 1

[2]

[3] - 3

[4] - 38

[5] - 5

[6] - 4

[7] - 7

[8] - 8

[9]

[10] - 10

[11] - 45

[12] - 11

[13]

[14] - 48

[15]

[16] - 50

$$h(x) = x \% 17$$

[0]

[1] - 1

[2]

[3] - 3

[4] - 38

[5] - 5

[6] - 4

[7] - 7

[8] - 8

[9] - 55

[10] - 10

[11] - 45

[12] - 11

[13]

[14] - 48

[15]

[16] - 50

$$h(x) = x \% 17$$

[0]

[1] - 1

[2]

[3] - 3

[4] - 38

[5] - 5

[6] - 4

[7] - 7

[8] - 8

[9] - 55

[10] - 10

[11] - 45

[12] - 11

[13] - 60

[14] - 48

[15]

[16] - 50

$$h(x) = x \% 17$$

[0]

[1] - 1

[2]

[3] - 3

[4] - 38

[5] - 5

[6] - 4

[7] - 7

[8] - 8

[9] - 55

[10] - 10

[11] - 45

[12] - 11

[13] - 60

[14] - 48

[15] - 30

[16] - 50

$$h(x) = x \% 17$$

[0] - 32

[1] - 1

[2]

[3] - 3

[4] - 38

[5] - 5

[6] - 4

[7] - 7

[8] - 8

[9] - 55

[10] - 10

[11] - 45

[12] - 11

[13] - 60

[14] - 48

[15] - 30

[16] - 50

$$h(x) = x \% 17$$

[0] - 32

[1] - 1

[2] - 33

[3] - 3

[4] - 38

[5] - 5

[6] - 4

[7] - 7

[8] - 8

[9] - 55

[10] - 10

[11] - 45

[12] - 11

[13] - 60

[14] - 48

[15] - 30

[16] - 50