Pregunta 2

2)

0	1	2	3	4	5	6	7	8	9	10
47	23		14	15	3	5	7	8	36	10

Total: 27

23: $H(23) = 23 \bmod 11 = 1$ — 1 intento

14: $H(14) = 14 \bmod 11 = 3$ — 1 intento

10: $H(10) = 10$ — 1 intento

15: $H(15) = 15 \bmod 11 = 4$ — 1 intento

3: $H(3) = 3$
$h_1(3) = 3+1 \bmod 11 = 4$
$h_2(3) = 3+2 \bmod 11 = 5$
— 3 intentos

5: $H(5) = 5$
$h_1(5) = 5+1 \bmod 11 = 6$
— 2 intentos

7: $H(7) = 7$ — 1 intento

8: $H(8) = 8$ — 1 intento

36: $H(36) = 36 \bmod 11 = 3$
$h_1(36) = 4$
$h_2(36) = 5$
$h_3(36) = 6$
$h_4(36) = 7$
$h_5(36) = 8$
$h_6(36) = 9$
— 7 intentos

47: $H(47) = 3$
$h_1 = 4$
$h_2 = 5$
$h_3 = 6$
$h_4 = 7$
$h_5 = 8$
$h_6 = 9$
$h_7 = 10$
$h_8 = 0$
— 9 intentos

47	23		14	15	5	36	3	8	7	10
0	1	2	3	4	5	6	7	8	9	10

b)

Total: 17

$H(23) = 1$ 1 in

$H(14) = 3$ 1 in

$H(10) = 10$ 1 in

$H(15) = 4$ 1 in

$H(3) = 3$

$h(3) = 3 \text{ MOD } 10 + 1 = 4$

$h_1(3) = 3 + 4 \text{ MOD } 11 = 7$ 2 in total

$H(5) = 5$ 1 in total

$H(7) = 7$

$h(7) = 7 \text{ MOD } 10 + 1 = 8$

$h_1(7) = 7 + 8 \text{ MOD } 11 = 4$

$h_2(7) = 7 + 8 \cdot 2 \text{ MOD } 11 = 23 \text{ MOD } 11 = 1$ | 4 in total

$h_3(7) = 7 + 8 \cdot 3 = 31 \text{ MOD } 11 = 9$

$H(8) = 8$ 1 in total

$H(36) = 3$

$h(36) = 36 \text{ MOD } 10 + 1 = 7$

$h_1(36) = 3 + 7 \cdot 1 \text{ MOD } 11 = 10$

$h_2(36) = 3 + 7 \cdot 2 \text{ MOD } 11 = 17 \text{ MOD } 11 = 6$ | 3 in total

$H(47) = 3$

$h(47) = 47 \text{ MOD } 10 + 1 = 8$ | insgesamt 2 mehr

$h_1(47) = 3 + 8 \text{ MOD } 11 = 0$

$H(23) = 1$ 1 in total

$H(14) = 3$ 1 in

$H(10) = 10$ 1 in

$H(15) = 4$ 1 in

$H(3) = 3$ 2 in

$H(5) = 5$ 1 in

$H(7) = 7$ 1 in

$H(8) = 8$ 1 in

$H(36) = 3$ 3 in

$H(47) = 3$ 4 in

Total: 16

c)