

ex.

Linear key = 14, 29

Val = 7, 10, 12, 14, 16, 20, 29, 37

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑
k ≠ 14

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑
k ≠ 14

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑
k ≠ 14

0	1	2	3	4	5	6	7
7	10	12	14	16	20	29	37

↑
k = 14

"index 14 is 3"

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑
k ≠ 29

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑
k ≠ 29

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑
k ≠ 29

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑
k ≠ 29

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑
k ≠ 29

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑
k ≠ 29

0	1	2	3	4	5	6	7
7	10	12	14	16	20	29	37

↑
k = 14

"index 29 is 6"

∴ Linear

jump of each algorithm?

∴ |14| jump 4 (index 14 is 3)

0	1	2	3	4	5	6	7
7	10	12	14	16	20	29	37

↑

∴ |29| jump 7 (index 29 is 6)

0	1	2	3	4	5	6	7
7	10	12	14	16	20	29	37

↑
k = 14

binary sea

low = l

Val = 7, 10, 12, 14, 16, 20, 29, 37

high = h

key = 14

key = 29

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑

l

↑

h

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑

mid = 14

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑

l

↑

mid

↑

h

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑

l

↑

mid

↑

h

7	10	12	14	16	20	29	37
---	----	----	----	----	----	----	----

↑

mid = 29

↑

h

oo binary sea

jump of each algorithm?

o | 14 | Doesn't jump because it's divided in half
(14 is not a power of 2, so mid = 14) by google

o | 29 | jump 3