

Day 1 |

Binary search

2	4	6	8	9
L				H

o why Binary ?

- If we are using Linear Search, then it will take $\propto n$ time to search number, while making mid & then using if/else we can run loop towards left or right depends on key number.
- ~~not depends~~

o $\frac{lo + (hi + lo)}{2}$

best for 32 bit element. it is more efficient than other formula's.

```
while (l <= h) {  
    mid = lo + (hi + lo) / 2  
    if (a[mid] < k)  
        l = mid + 1
```

else

h = mid - 1

}

→
// towards right

←
// toward left