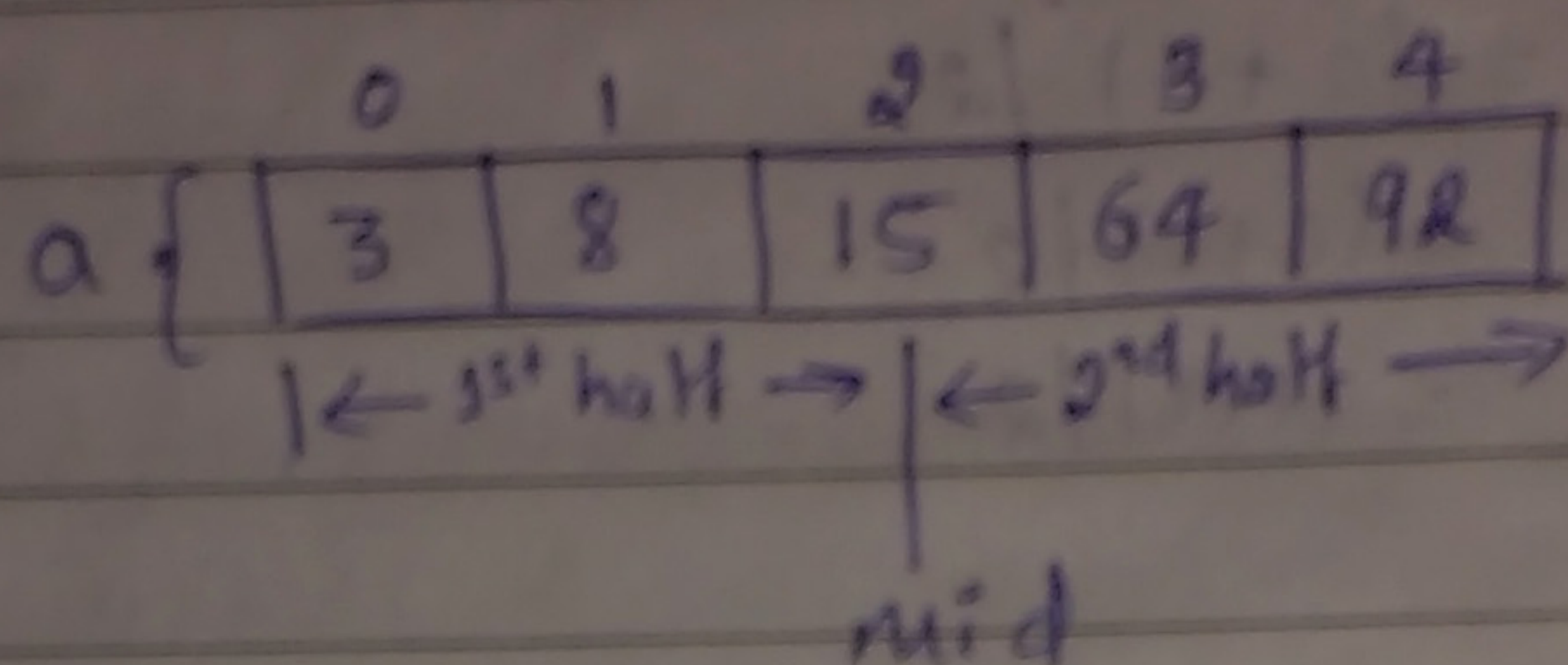
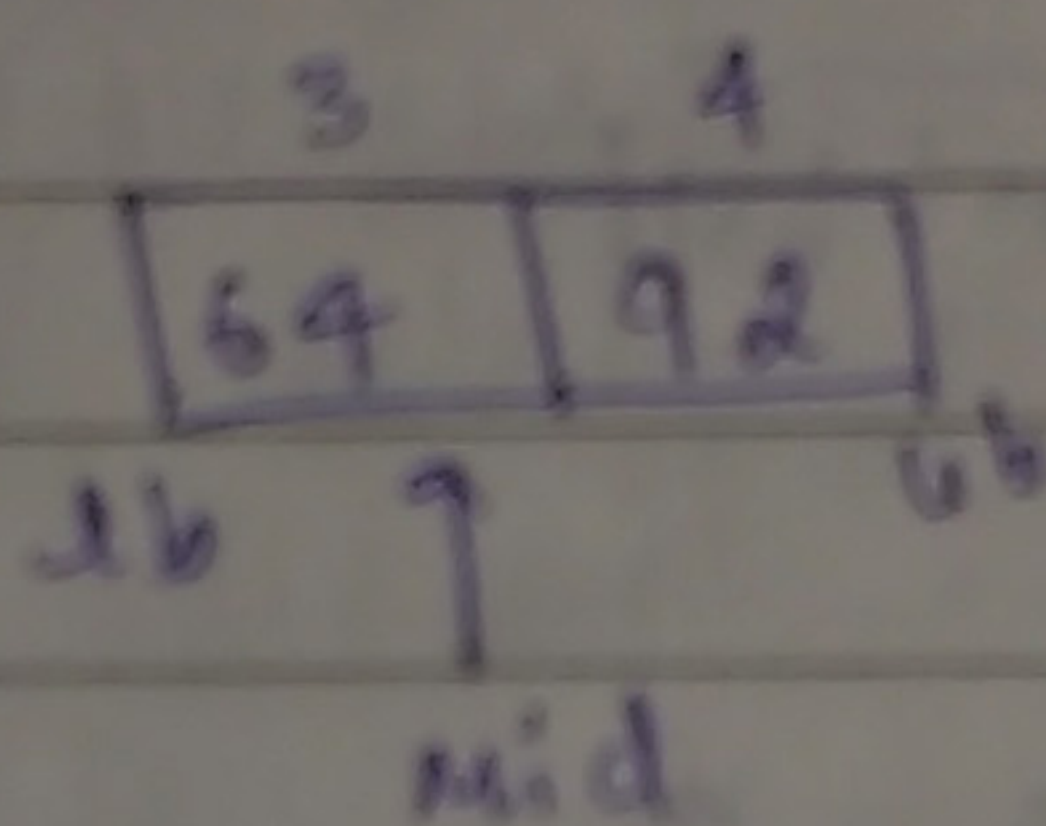


## Tracing for not find



key value



```

do
{
  mid = (lb + ub) / 2
  if (key value < a[mid])
    ub = mid - 1;
  else if (key value > a[mid])
    lb = mid + 1;
} while (key value != a[mid] && ub >= lb)
  
```

$mid = (lb + ub) / 2$   
 $2 = (0 + 4) / 2$   
 $3 = (3 + 4) / 2$   
 $4 = (4 + 4) / 2$