

Any doubts ??

Q Wildcard matching

Input (s)

pattern (p)

?
↓
single character

*
↘
matches any sequence of char.

Eg: s = b a a a b a b
p = b a * a ?
ans → true

p[0] = s[0]

p[0] == '?'

p[0] == '*'

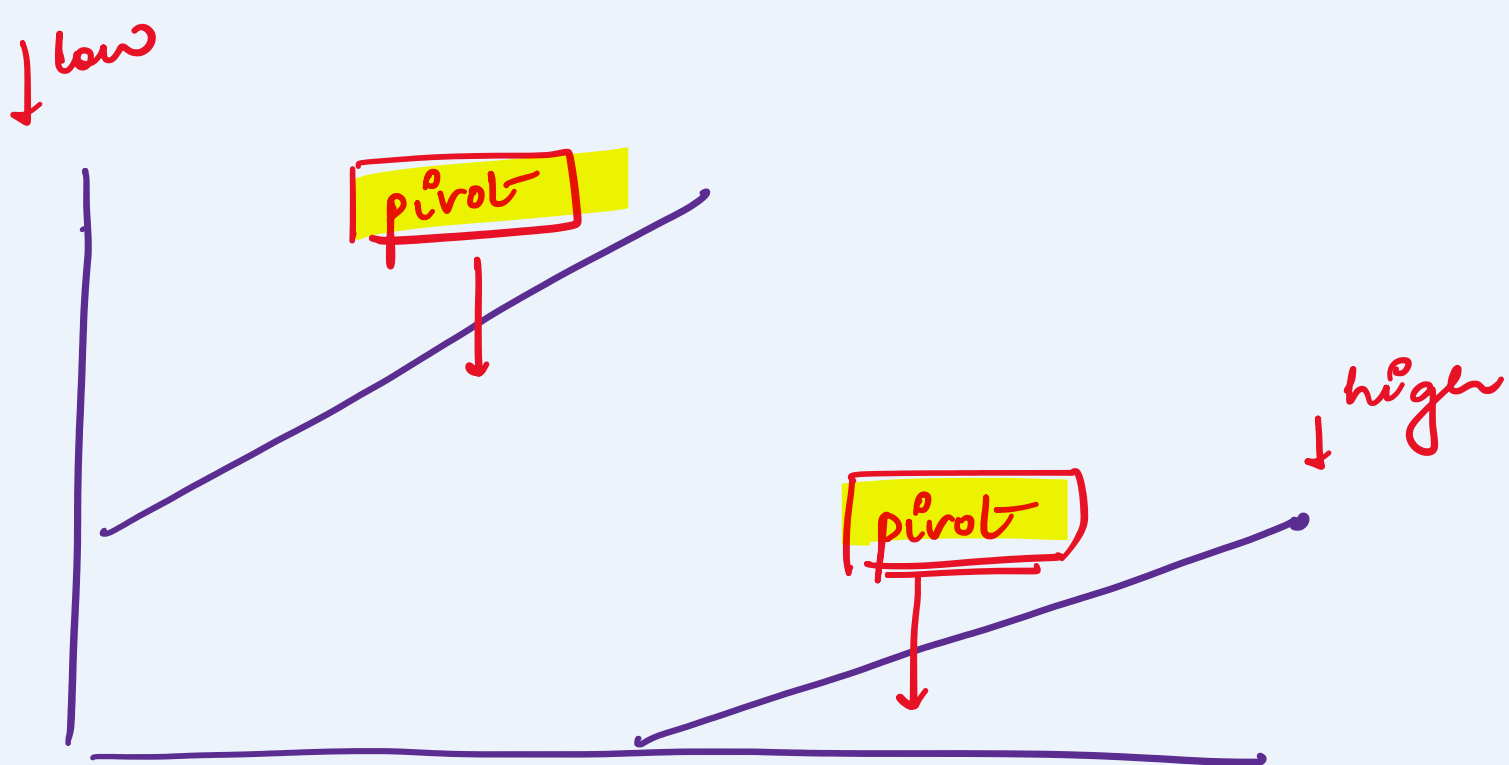
Handwritten notes for Wildcard matching:

- For 'a?': 'a' matches 'a', 'b' matches 'b', 'c' matches 'c', 'd' matches 'd', 'e' matches 'e', 'f' matches 'f', 'g' matches 'g', 'h' matches 'h', 'i' matches 'i', 'j' matches 'j', 'k' matches 'k', 'l' matches 'l', 'm' matches 'm', 'n' matches 'n', 'o' matches 'o', 'p' matches 'p', 'q' matches 'q', 'r' matches 'r', 's' matches 's', 't' matches 't', 'u' matches 'u', 'v' matches 'v', 'w' matches 'w', 'x' matches 'x', 'y' matches 'y', 'z' matches 'z'.
- For 'a?': 'a' matches 'a', 'b' matches 'b', 'c' matches 'c', 'd' matches 'd', 'e' matches 'e', 'f' matches 'f', 'g' matches 'g', 'h' matches 'h', 'i' matches 'i', 'j' matches 'j', 'k' matches 'k', 'l' matches 'l', 'm' matches 'm', 'n' matches 'n', 'o' matches 'o', 'p' matches 'p', 'q' matches 'q', 'r' matches 'r', 's' matches 's', 't' matches 't', 'u' matches 'u', 'v' matches 'v', 'w' matches 'w', 'x' matches 'x', 'y' matches 'y', 'z' matches 'z'.
- For 'a?': 'a' matches 'a', 'b' matches 'b', 'c' matches 'c', 'd' matches 'd', 'e' matches 'e', 'f' matches 'f', 'g' matches 'g', 'h' matches 'h', 'i' matches 'i', 'j' matches 'j', 'k' matches 'k', 'l' matches 'l', 'm' matches 'm', 'n' matches 'n', 'o' matches 'o', 'p' matches 'p', 'q' matches 'q', 'r' matches 'r', 's' matches 's', 't' matches 't', 'u' matches 'u', 'v' matches 'v', 'w' matches 'w', 'x' matches 'x', 'y' matches 'y', 'z' matches 'z'.

	b	a	a	a	b	a	b	-	✓
b	✓	x	x	x	x	x	x	x	x
a	x	✓	✓	✓	x	x	x	x	x
*	✓	✓	✓	✓	✓	✓	x	x	x
a	x	x	x	x	x	✓	x	x	x
?	x	x	x	x	x	x	x	✓	x
-	x	x	x	x	x	x	x	x	✓

Q Find minimum in rotated sorted array II

✓ [0 1 2 3 4 5 6 7]
↓
→ [4 5 6 7 0 1 2 3]
min ele



- ① arr[pivot] < arr[high]
- ② arr[pivot] > arr[high]
- ③ arr[pivot] == arr[high]

```
int low = 0;
high = arr.length - 1;
```

```
while (low < high) {
```

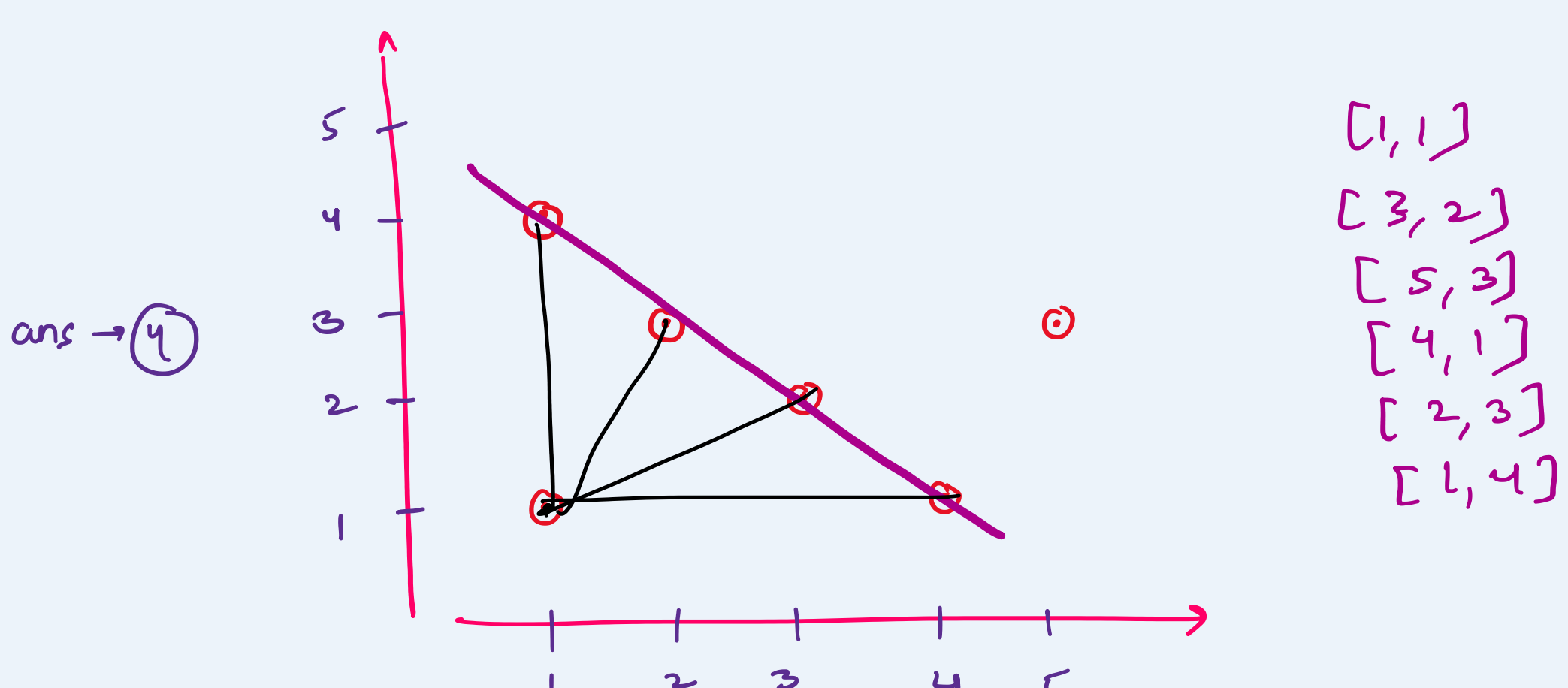
```
    pivot = low + (high - low) / 2;
    if (arr[pivot] < arr[high])
        high = pivot;
```

```
    else if (arr[pivot] > arr[high])
        low = pivot + 1;
```

```
    else
        high -= 1;
```

```
}
return arr[low];
```

Q Max points on a straight line



ans → 4

l-2

l+1 → n-1

1 2 3 4 5
2
2

For each point (p), slope with other points. and

map → points have the same slope.

$$(x_1, y_1), (x_2, y_2) \rightarrow \left(\frac{y_2 - y_1}{x_2 - x_1} \right)$$