

- Given n points on a 2D plane where $\text{points}[i] = [x_i, y_i]$
- Return widest vertical area between two points such that no points are inside the area.

Ex. Input: $[[8,7], [9,9], [7,4], [9,7]]$
 Output: 1

Since we only care about horizontal distance and not vertical distance, we can only focus on the x -values.

Process.

- 1) Sort the array (based on x)
- 2) Enumerate all values, comparing distance between i and $i-1$. If greater, override current value.
- 3) Return value.

$\text{wva}(\text{input} : \text{list}[\text{list}[x, y]]) \rightarrow \text{Number}$

sort(input, [])(lhs, rhs) \rightarrow bool {

⋮

return lhs.x < rhs.x

}

result = 0

✗ prev = 0

for $i = 1 \rightarrow \text{len}(\text{input})$ {

⋮

```
dist = input[i].x - input[i-1].x
x [ if dist > result
  :   result = dist
  :
  :   result = max(dist, result)
  }
return result
```