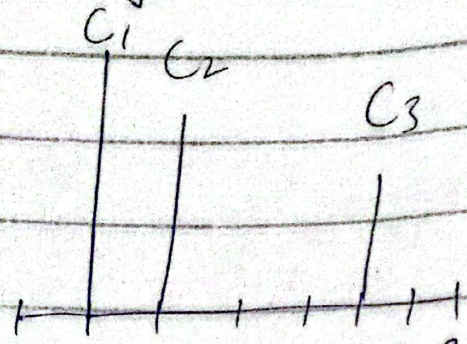
# Aggressive Cows Problem

Assign C cows to N stalls such that min distance between them is largest possible.
Return largest minimum distance.

N= 5  arr = [1, 2, 8, 4, 9]  C = 3

# Aggressive Cows

Largest_Min_distance = ?

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min (low) ⟵ Range ⟶ max (High)

[Largest in all] - [Smallest in all]

$$mid = \left(st + \left(\frac{e-s}{2}\right)\right)$$

mid

Possible
ans = mid
Right

Not Possible
Smaller (left)

Pseudocode

```
while(st<=end){
    mid = st+(e-s/2)
    if(isPossible(mid)){ → Right
        ans = mid
        st = mid+1
```

else{
end = mid - 1
}

① Sort the Array
sort(arr.begin(), arr.end())

cows = 1
for(i=1; i<n; i++){
if(arr[i] - left) >= mid
cows++
lastStall = arr[i]
}
if(cows == c)
return true