① 

ⓐ function get Idom (P):
$$S = []$$
for $i$ in $0 ... |P|$:
$d = false$
for $j$ in $0 ... |P|$:
if $(j \neq i)$:
if $(p_j.x \geq p_i.x) \land (p_j.y \geq p_i.y)$:
$d = true$
break

if $\neg d$:
$S.append(p_i)$
return $S$

$O(n^2)$

ⓑ function get Idom (P):
sort $(all(P))$ → by $x$ and then by $y$
$maxy = -\infty$
$S = []$
for $i$ in $0, ..., |P|$:
if $p_i.y \geq maxy$:
$S.append[p_i]$
$maxy = p_i.y$

return $S$

$O(n \log n)$

return $S$

© function f(S_current, p_new):

    for p_old in S_current:
        if(p_old.x $\geq$ p_new.x) $\wedge$ (p_old.y $\geq$ p_new.y):
            return S_current

    S_new = [p_new]
    for p_old in S_current:
        if $\neg$((p_new.x $\geq$ p_old.x) $\wedge$ (p_new.y $\geq$ p_old.y)):
            S_new.append(p_old)

    return S_new.

  K = |S_current|
  $O(K)$ for single point insertion

②

  $c_1$ = Cubes [0]
  $C_i\_mx\_x = c_1.x + c_1.sz$
  $C_i\_mx\_y = c_1.y + c_1.sz$
  $C_i\_mx\_z = c_1.z + c_1.sz$
  $C_i\_mn\_x = c_1.x$
  $C_i\_mn\_y = c_1.y$
  $C_i\_mn\_z = c_1.z$

  for $c_i$ in $C_1, \dots, C_n$

    $C_i\_mx\_x = max(C_i\_mx\_x,$
        $c_i.x + c_i.sz)$
    $C_i\_mx\_y = max(C_i\_mx\_y,$
        $c_i.y + c_i.sz)$
    $C_i\_mx\_z = max(C_i\_mx\_z,$
        $c_i.z + c_i.sz)$

    $C_i\_mn\_x = min(C_i\_mn\_x, c_i.x)$
    $C_i\_mn\_y = min(C_i\_mn\_y, c_i.y)$
    $C_i\_mn\_z = min(C_i\_mn\_z, c_i.z)$

$l = max(C_i\_mx\_x - C_i\_mn\_x, 0)$
$w = max(C_i\_mx\_y - C_i\_mn\_y, 0)$
$h = max(C_i\_mx\_z - C_i\_mn\_z, 0)$
return $(l \times h \times w)$