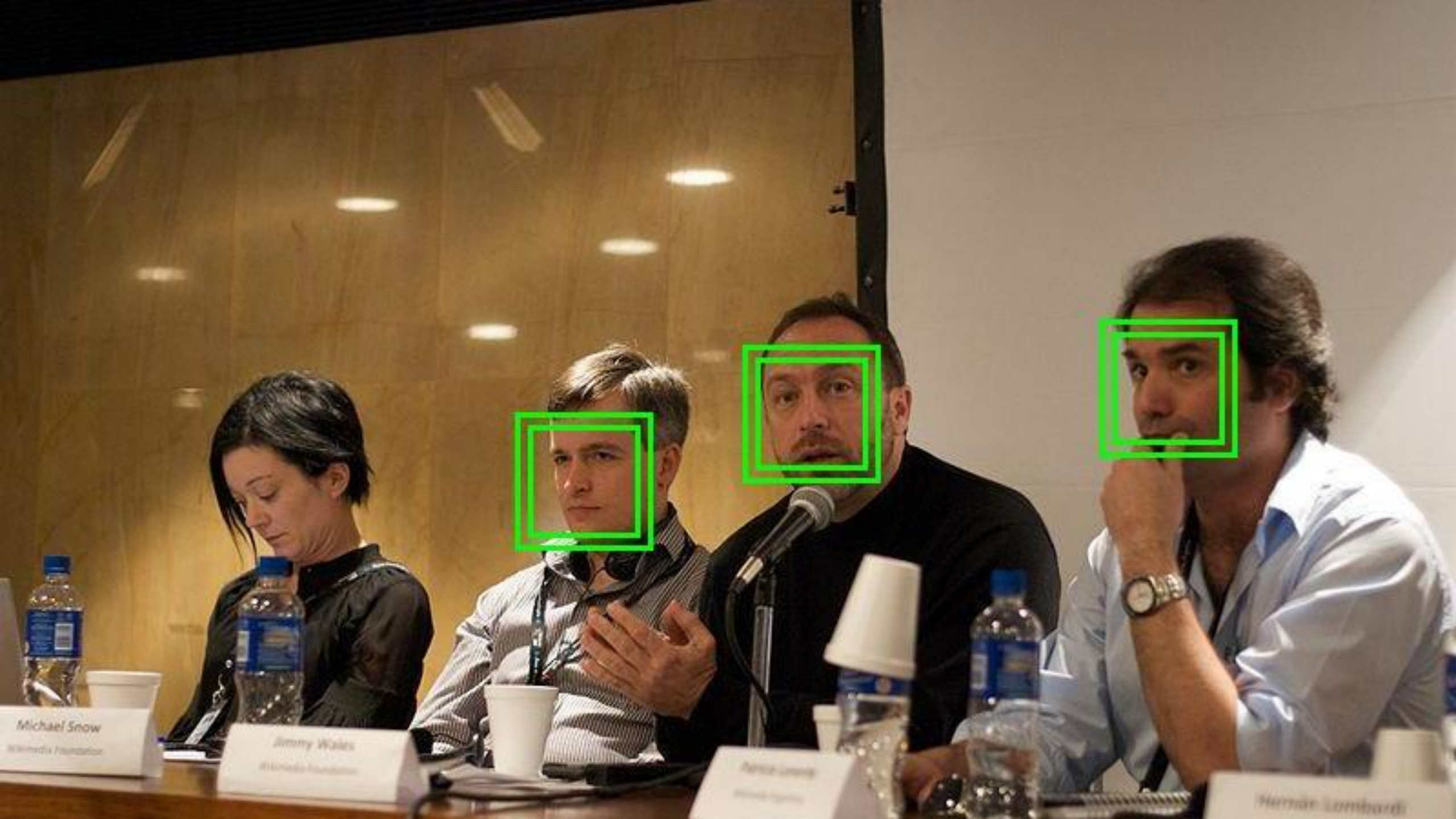


Component Labelling

Count how many?



Michael Snow
Wikimedia Foundation

Jimmy Wales
Wikimedia Foundation

David Byrne
Wikimedia Foundation

Herb Lubowicz
Wikimedia Foundation

if $f(x, y) = '1'$

then

:

Case ④

$$L(T) \neq \emptyset ; L(L) \neq \emptyset$$

Sub case ①

$$L(T) = L(L)$$

$$L(P) = L(T)$$

Sub case ②

$$L(T) \neq L(L)$$

$$L(P) = L(L)$$

Case ①

$$L(T) = \emptyset \ \& \ L(L) = \emptyset$$

$$L(P) = \text{'New Label'}$$

Case ②

$$L(T) \neq \emptyset ; L(L) = \emptyset$$

$$L(P) = L(T)$$

Case ③

$$L(T) = \emptyset ; L(L) \neq \emptyset$$

$$L(P) = L(L)$$

$$L(L) = L(T)$$

Pass ②

only if.

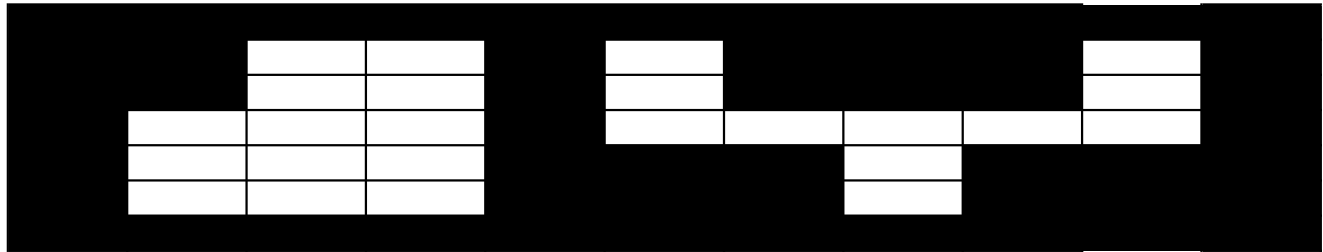
Case ④ Subcase ⑥ is true.

$$L(T) = L(L) = L(T)$$

$$1 = 4 = 1 \quad \checkmark$$

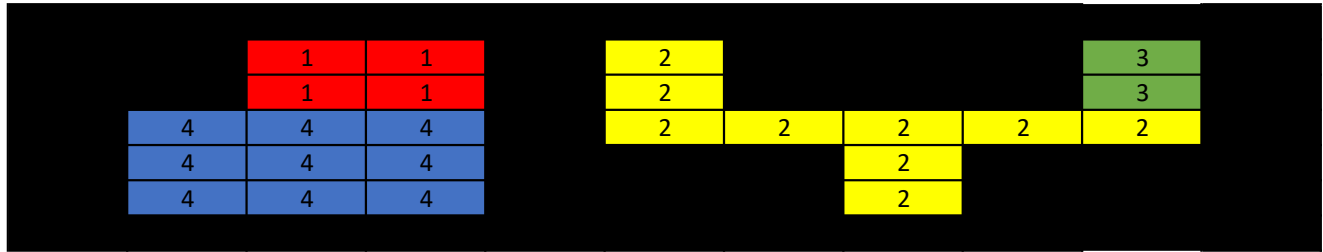
$$\vdots 2 = 3 = 2 \quad \checkmark$$

Count Labels



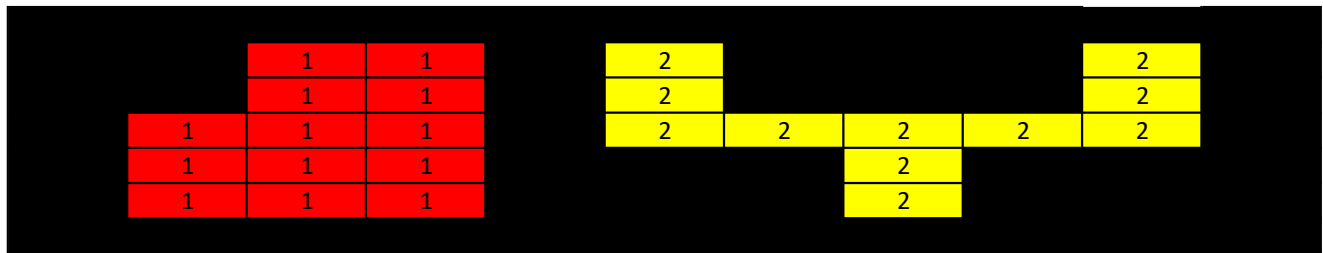
Input Image

Pass#01



1	4	Same
2	3	Same

Pass#02



Output Image