

Algorithm statistic(B, P)

Input A sequence B of all books with size n

A sequence P of 30 publishers

Output An AVL tree with each node is a pair of
key · publisher

element · counter (how many books belongs to the
publisher)

$T \leftarrow$ empty AVL tree USE a dictionary (and insert P)
or sort P ~~insert~~

while $TB \neq \text{Empty}()$ do

$x \leftarrow B.\text{remove}(B.\text{first}())$

item \leftarrow BinarySearch($\text{Key}(x)$) Use $n \log 30$
dictionary

If item = NULL then

$T.\text{insertItem}(x)$

else

item.elem \leftarrow item.elem + 1

✓ $O(n \log 30)$