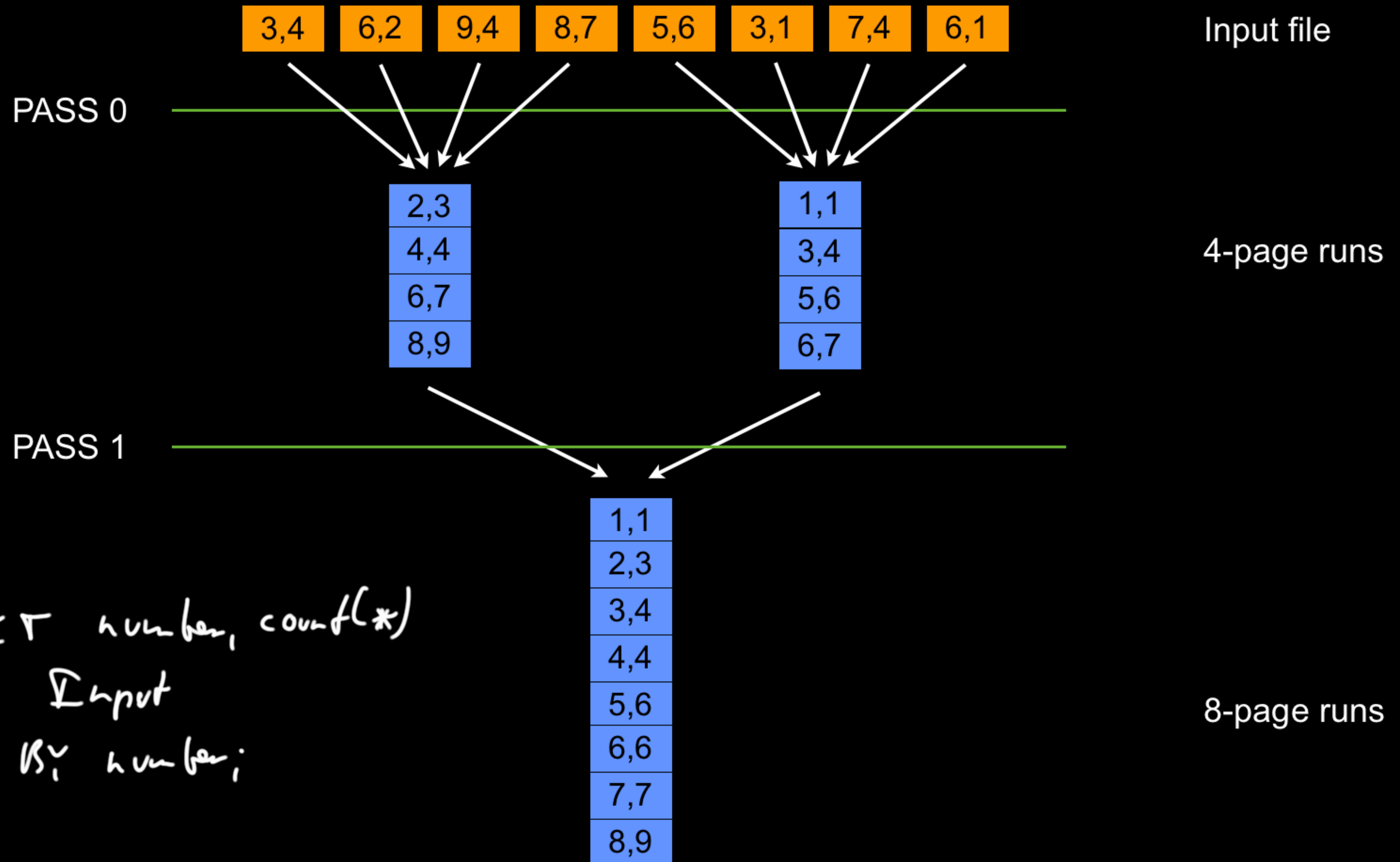
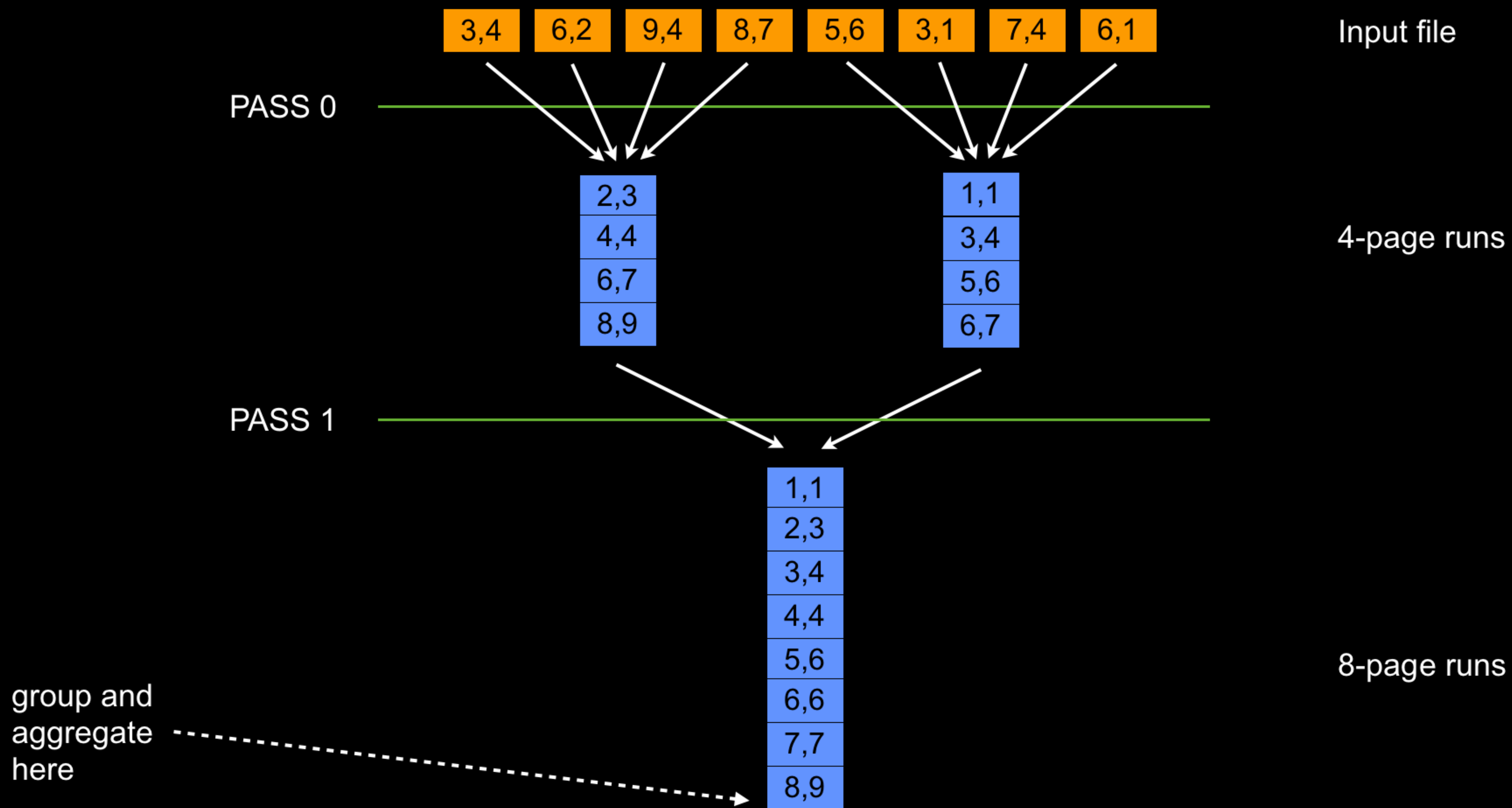


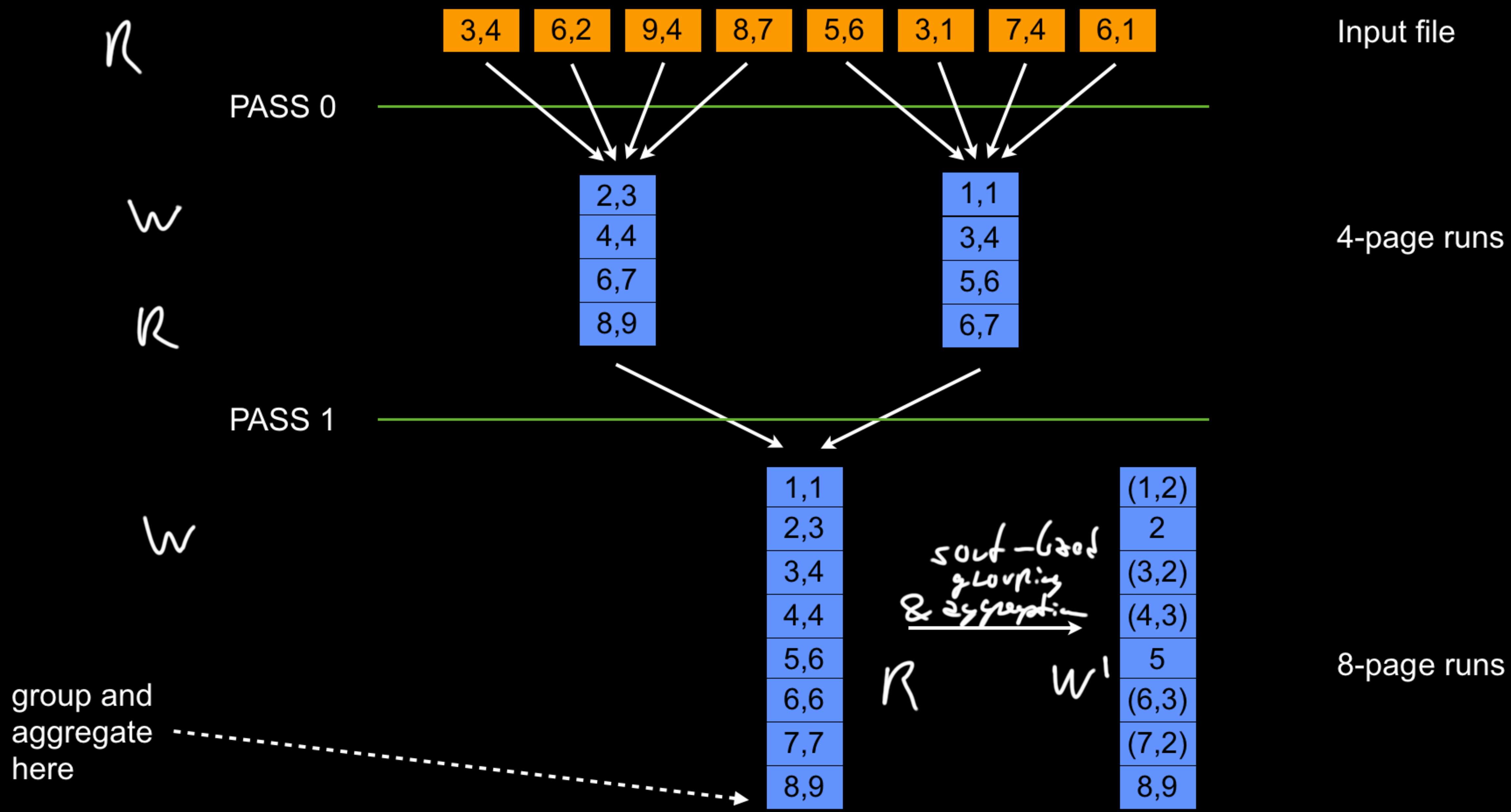
External Merge Sort + Grouping with Aggregation?



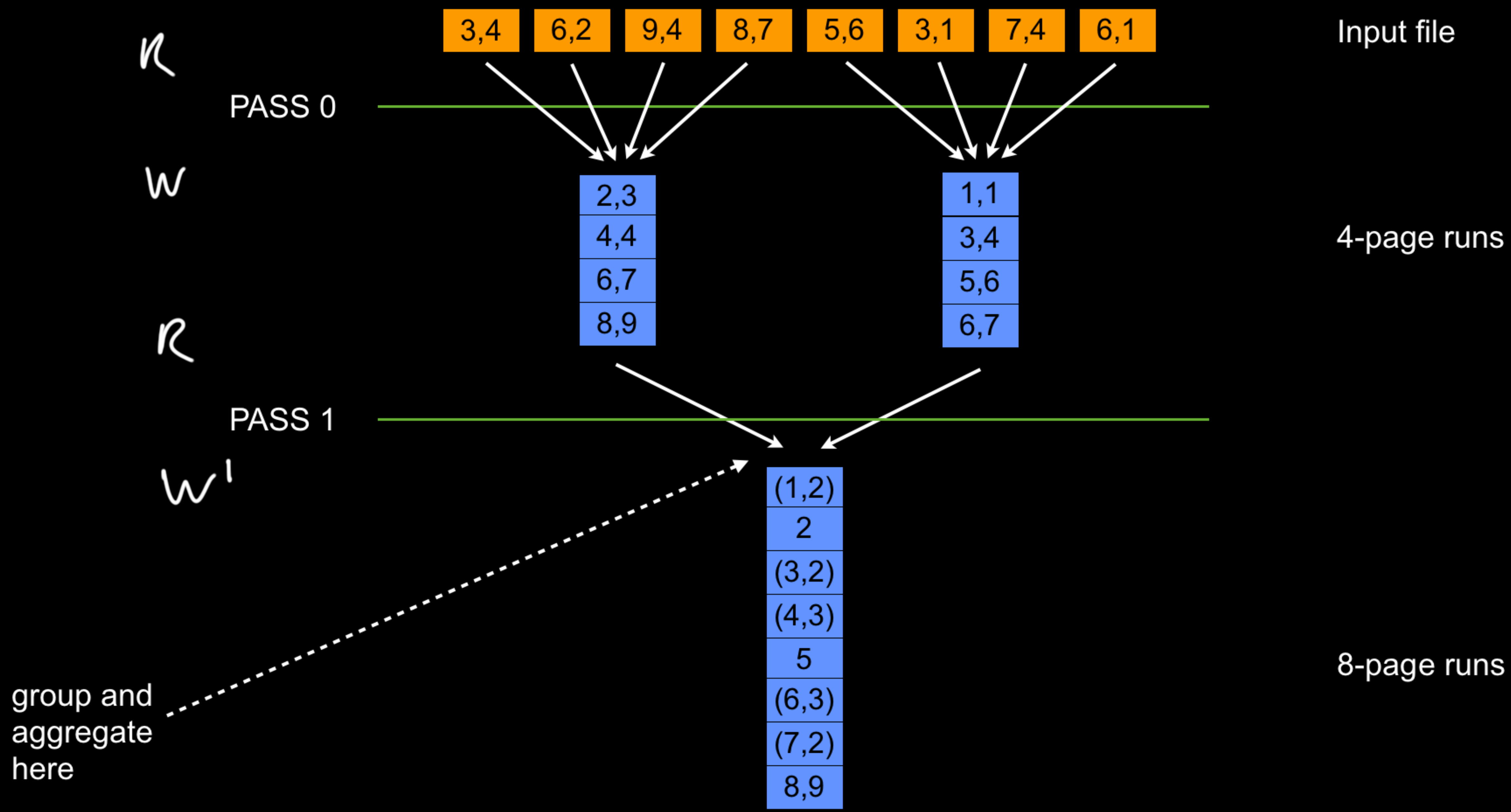
Late Grouping with Aggregation: Part 1



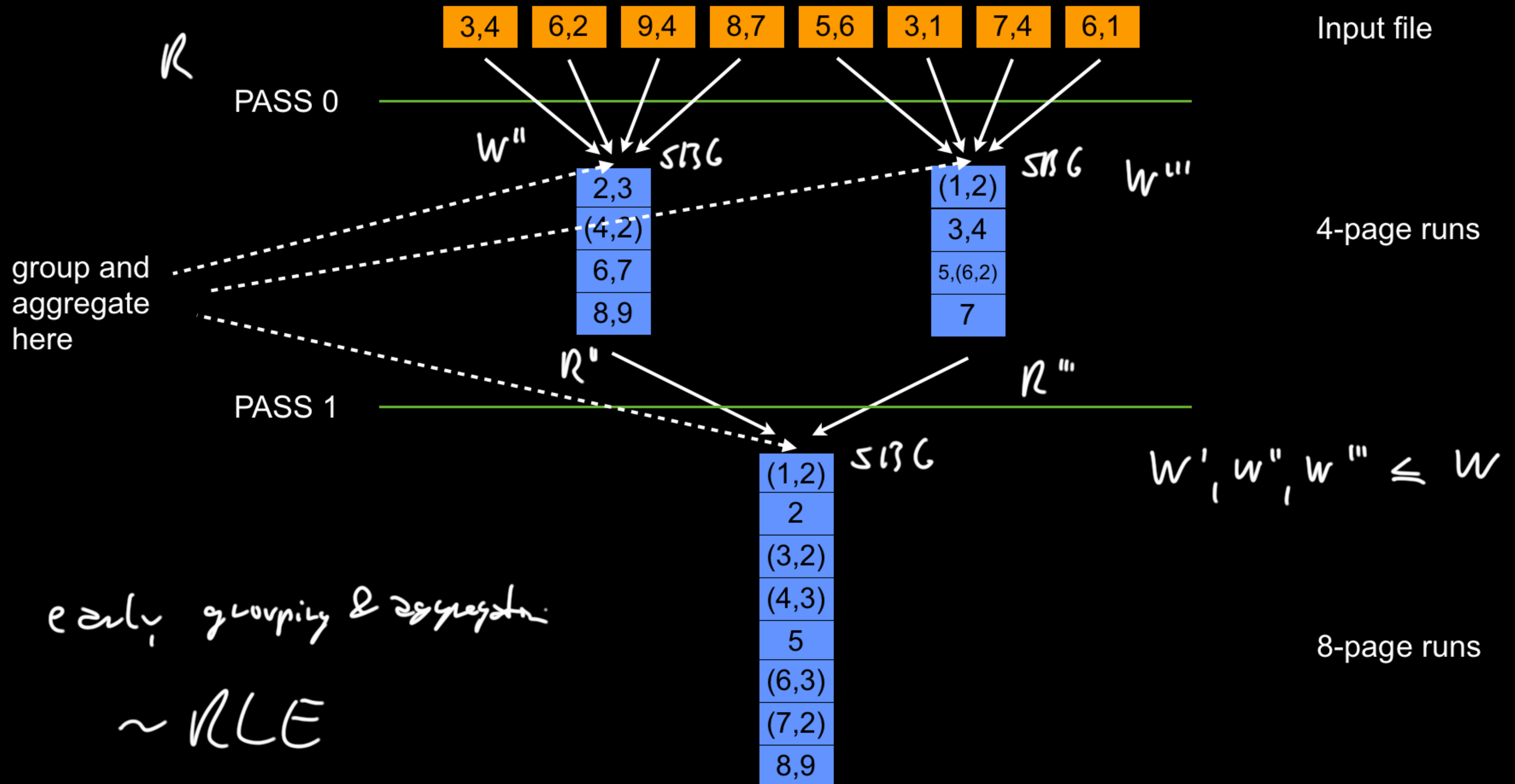
Late Grouping with Aggregation: Part 2



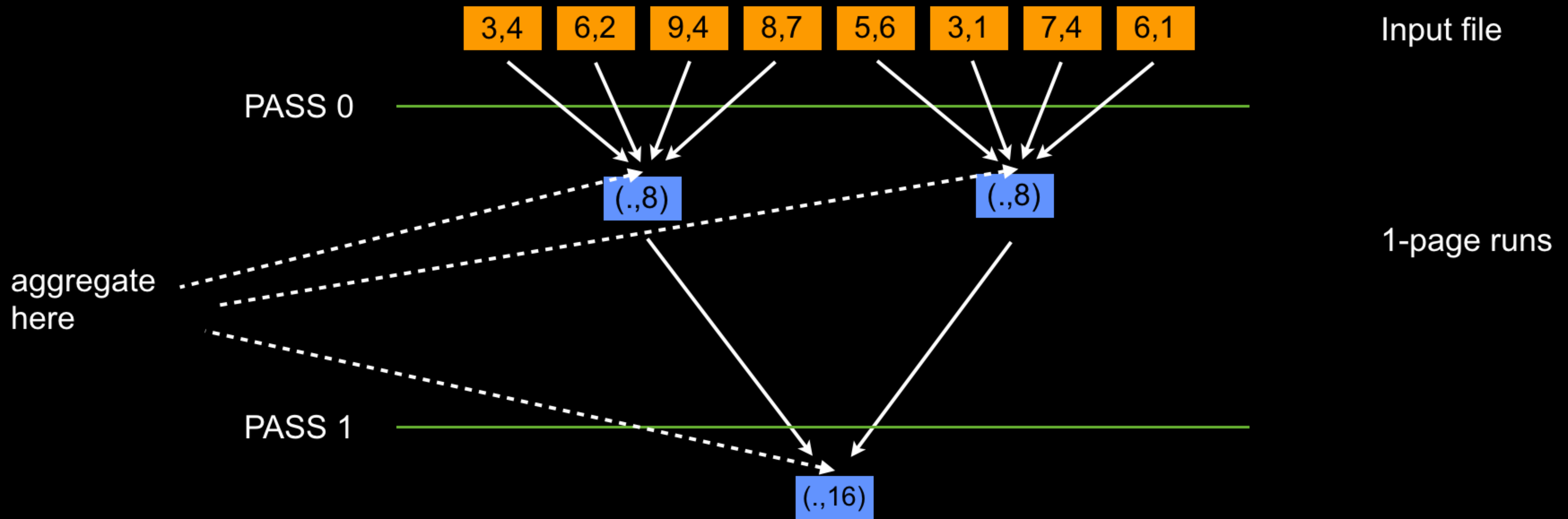
Online Grouping with Aggregation (aka Online Merge)



Early Grouping with Aggregation: group and count()



Early Aggregation only: just count()



```
SELECT NUMBER/10, count(*)  
FROM Input  
GROUP BY Number;
```

1-page runs