

3.23.

There are two approach of treating ties. Say $m > 1$ students have the same score, and their rank is r . In the first approach, the student with the next score has a rank $r + m$. In the second approach, on the other hand, the student with the next score has a rank $r + 1$ (i.e., this approach does not consider the effect of m).

Solution of the first approach:

```
(select student_id, 1
from marks
where score = (select max(score) from marks))
union
(select T1.student_id, count(*) + 1
from marks T1, marks T2
where T1.score < T2.score
groupby T1.student_id)
```

Solution of the second:

```
select T1.student_id, count(distinct T2.score)
from marks T1, marks T2
where T1.score <= T2.score
groupby T1.student_id
```