

- a positional parameter marker (?)
- a user-defined variable
- a local variable in a stored routine

This function should be used with `ORDER BY` to sort partition rows into the desired order.

`over_clause` is as described in [Section 12.21.2, “Window Function Concepts and Syntax”](#).

The following query shows, for the set of values in the `val` column, the percentile values resulting from dividing the rows into two or four groups. For reference, the query also displays row numbers using `ROW_NUMBER()`:

```
mysql> SELECT
      val,
      ROW_NUMBER() OVER w AS 'row_number',
      NTILE(2)      OVER w AS 'ntile2',
      NTILE(4)      OVER w AS 'ntile4'
FROM numbers
WINDOW w AS (ORDER BY val);
```

val	row_number	ntile2	ntile4
1	1	1	1
1	2	1	1
2	3	1	1
3	4	1	2
3	5	1	2
3	6	2	3
4	7	2	3
4	8	2	4
5	9	2	4

Beginning with MySQL 8.0.22, the construct `NTILE(NULL)` is no longer permitted.

- `PERCENT_RANK()` *over\_clause*

Returns the percentage of partition values less than the value in the current row, excluding the highest value. Return values range from 0 to 1 and represent the row relative rank, calculated as the result of this formula, where *rank* is the row rank and *rows* is the number of partition rows:

```
(rank - 1) / (rows - 1)
```

This function should be used with `ORDER BY` to sort partition rows into the desired order. Without `ORDER BY`, all rows are peers.

`over_clause` is as described in [Section 12.21.2, “Window Function Concepts and Syntax”](#).

For an example, see the `CUME_DIST()` function description.