

- `STDDEV_POP(expr) [over_clause]`

Returns the population standard deviation of *expr* (the square root of `VAR_POP()`). You can also use `STD()` or `STDDEV()`, which are equivalent but not standard SQL.

If there are no matching rows, `STDDEV_POP()` returns `NULL`.

This function executes as a window function if *over_clause* is present. *over_clause* is as described in [Section 12.21.2, “Window Function Concepts and Syntax”](#).

- `STDDEV_SAMP(expr) [over_clause]`

Returns the sample standard deviation of *expr* (the square root of `VAR_SAMP()`).

If there are no matching rows, `STDDEV_SAMP()` returns `NULL`.

This function executes as a window function if *over_clause* is present. *over_clause* is as described in [Section 12.21.2, “Window Function Concepts and Syntax”](#).

- `SUM([DISTINCT] expr) [over_clause]`

Returns the sum of *expr*. If the return set has no rows, `SUM()` returns `NULL`. The `DISTINCT` keyword can be used to sum only the distinct values of *expr*.

If there are no matching rows, `SUM()` returns `NULL`.

This function executes as a window function if *over_clause* is present. *over_clause* is as described in [Section 12.21.2, “Window Function Concepts and Syntax”](#); it cannot be used with `DISTINCT`.

- `VAR_POP(expr) [over_clause]`

Returns the population standard variance of *expr*. It considers rows as the whole population, not as a sample, so it has the number of rows as the denominator. You can also use `VARIANCE()`, which is equivalent but is not standard SQL.

If there are no matching rows, `VAR_POP()` returns `NULL`.

This function executes as a window function if *over_clause* is present. *over_clause* is as described in [Section 12.21.2, “Window Function Concepts and Syntax”](#).

- `VAR_SAMP(expr) [over_clause]`

Returns the sample variance of *expr*. That is, the denominator is the number of rows minus one.

If there are no matching rows, `VAR_SAMP()` returns `NULL`.

This function executes as a window function if *over_clause* is present. *over_clause* is as described in [Section 12.21.2, “Window Function Concepts and Syntax”](#).

- `VARIANCE(expr) [over_clause]`

Returns the population standard variance of *expr*. `VARIANCE()` is a synonym for the standard SQL function `VAR_POP()`, provided as a MySQL extension.

If there are no matching rows, `VARIANCE()` returns `NULL`.

This function executes as a window function if *over_clause* is present. *over_clause* is as described in [Section 12.21.2, “Window Function Concepts and Syntax”](#).