

values the list are sorted and the search for *expr* is done using a binary search, which makes the `IN()` operation very quick.

```
mysql> SELECT 2 IN (0,3,5,7);
-> 0
mysql> SELECT 'wefwf' IN ('wee','wefwf','weg');
-> 1
```

`IN()` can be used to compare row constructors:

```
mysql> SELECT (3,4) IN ((1,2), (3,4));
-> 1
mysql> SELECT (3,4) IN ((1,2), (3,5));
-> 0
```

You should never mix quoted and unquoted values in an `IN()` list because the comparison rules for quoted values (such as strings) and unquoted values (such as numbers) differ. Mixing types may therefore lead to inconsistent results. For example, do not write an `IN()` expression like this:

```
SELECT val1 FROM tbl1 WHERE val1 IN (1,2,'a');
```

Instead, write it like this:

```
SELECT val1 FROM tbl1 WHERE val1 IN ('1','2','a');
```

Implicit type conversion may produce nonintuitive results:

```
mysql> SELECT 'a' IN (0), 0 IN ('b');
-> 1, 1
```

In both cases, the comparison values are converted to floating-point values, yielding 0.0 in each case, and a comparison result of 1 (true).

The number of values in the `IN()` list is only limited by the `max_allowed_packet` value.

To comply with the SQL standard, `IN()` returns `NULL` not only if the expression on the left hand side is `NULL`, but also if no match is found in the list and one of the expressions in the list is `NULL`.

`IN()` syntax can also be used to write certain types of subqueries. See [Section 13.2.11.3, “Subqueries with ANY, IN, or SOME”](#).

- `expr NOT IN (value,...)`

This is the same as `NOT (expr IN (value,...))`.

- `INTERVAL(N,N1,N2,N3,...)`

Returns 0 if *N* < *N1*, 1 if *N* < *N2* and so on or -1 if *N* is `NULL`. All arguments are treated as integers. It is required that *N1* < *N2* < *N3* < ... < *Nn* for this function to work correctly. This is because a binary search is used (very fast).

```
mysql> SELECT INTERVAL(23, 1, 15, 17, 30, 44, 200);
-> 3
mysql> SELECT INTERVAL(10, 1, 10, 100, 1000);
-> 2
mysql> SELECT INTERVAL(22, 23, 30, 44, 200);
-> 0
```

- `IS boolean_value`

Tests a value against a boolean value, where *boolean_value* can be `TRUE`, `FALSE`, or `UNKNOWN`.