

EXAMPLE - KTHLARGEST Function

This example explores how you can use aggregation functions to calculate rank of values in a column using the `KTHLARGEST` and `KTHLARGESTUNIQUE` functions.

- See *KTHLARGEST Function*.
- See *KTHLARGESTUNIQUE Function*.

Source:

You have a set of student test scores:

| Student | Score |
|----------|-------|
| Anna | 84 |
| Ben | 71 |
| Caleb | 76 |
| Danielle | 87 |
| Evan | 85 |
| Faith | 92 |
| Gabe | 87 |
| Hannah | 99 |
| Ian | 73 |
| Jane | 68 |

Transformation:

You can use the following transformations to extract the 1st through 4th-ranked scores on the test:

| | |
|-----------------------------------|-----------------------------------|
| Transformation Name | New formula |
| Parameter: Formula type | Single row formula |
| Parameter: Formula | <code>KTHLARGEST(Score, 1)</code> |
| Parameter: New column name | '1st' |

| | |
|-----------------------------------|-----------------------------------|
| Transformation Name | New formula |
| Parameter: Formula type | Single row formula |
| Parameter: Formula | <code>KTHLARGEST(Score, 2)</code> |
| Parameter: New column name | '2nd' |

| | |
|--------------------------------|-----------------------------------|
| Transformation Name | New formula |
| Parameter: Formula type | Single row formula |
| Parameter: Formula | <code>KTHLARGEST(Score, 3)</code> |

| | |
|-----------------------------------|-------|
| Parameter: New column name | '3rd' |
|-----------------------------------|-------|

| | |
|-----------------------------------|----------------------|
| Transformation Name | New formula |
| Parameter: Formula type | Single row formula |
| Parameter: Formula | KTHLARGEST(Score, 4) |
| Parameter: New column name | '4th' |

| | |
|-----------------------------------|----------------------------|
| Transformation Name | New formula |
| Parameter: Formula type | Single row formula |
| Parameter: Formula | KTHLARGESTUNIQUE(Score, 3) |
| Parameter: New column name | '3rdUnique' |

| | |
|-----------------------------------|----------------------------|
| Transformation Name | New formula |
| Parameter: Formula type | Single row formula |
| Parameter: Formula | KTHLARGESTUNIQUE(Score, 4) |
| Parameter: New column name | '4thUnique' |

Results:

When you reorganize the columns, the dataset might look like the following:

| Student | Score | 1st | 2nd | 3rd | 4th | 3rdUnique | 4thUnique |
|----------|-------|-----|-----|-----|-----|-----------|-----------|
| Anna | 84 | 99 | 92 | 87 | 87 | 87 | 85 |
| Ben | 71 | 99 | 92 | 87 | 87 | 87 | 85 |
| Caleb | 76 | 99 | 92 | 87 | 87 | 87 | 85 |
| Danielle | 87 | 99 | 92 | 87 | 87 | 87 | 85 |
| Evan | 85 | 99 | 92 | 87 | 87 | 87 | 85 |
| Faith | 92 | 99 | 92 | 87 | 87 | 87 | 85 |
| Gabe | 87 | 99 | 92 | 87 | 87 | 87 | 85 |
| Hannah | 99 | 99 | 92 | 87 | 87 | 87 | 85 |
| Ian | 73 | 99 | 92 | 87 | 87 | 87 | 85 |
| Jane | 68 | 99 | 92 | 87 | 87 | 87 | 85 |

Notes:

- The value 87 is both the third and fourth scores.
 - For the KTHLARGEST function, it is the output for the third and fourth ranking.
 - For the KTHLARGESTUNIQUE function, it is the output for the third ranking only.