

EXAMPLE - Logical Functions

This example demonstrate the AND, OR, and NOT logical functions.

In this example, the dataset contains results from survey data on two questions about customers. The yes/no answers to each question determine if the customer is 1) still active, and 2) interested in a new offering.

Functions:

| Item | Description |
|--------------|--|
| AND Function | Returns <code>true</code> if both arguments evaluate to <code>true</code> . Equivalent to the <code>&&</code> operator. |
| OR Function | Returns <code>true</code> if either argument evaluates to <code>true</code> . Equivalent to the <code> </code> operator. |
| NOT Function | Returns <code>true</code> if the argument evaluates to <code>false</code> , and vice-versa. Equivalent to the <code>!</code> operator. |

Source:

| Customer | isActive | isInterested |
|----------|----------|--------------|
| CustA | Y | Y |
| CustB | Y | N |
| CustC | N | Y |
| CustD | N | N |

Transformation:

Customers that are both active and interested should receive a phone call:

| | |
|-----------------------------------|--|
| Transformation Name | New formula |
| Parameter: Formula type | Single row formula |
| Parameter: Formula | <code>AND(isActive, isInterested)</code> |
| Parameter: New column name | 'phoneCall' |

Customers that are either active or interested should receive an email:

| | |
|-----------------------------------|---|
| Transformation Name | New formula |
| Parameter: Formula type | Single row formula |
| Parameter: Formula | <code>OR(isActive, isInterested)</code> |
| Parameter: New column name | 'sendEmail' |

Customers that are neither active or interested should be dropped from consideration for the offering:

| | |
|--------------------------------|--|
| Transformation Name | New formula |
| Parameter: Formula type | Single row formula |
| Parameter: Formula | <code>AND(NOT(isActive), NOT(isInterested))</code> |

| | |
|-----------------------------------|------------|
| Parameter: New column name | 'dropCust' |
|-----------------------------------|------------|

A savvy marketer might decide that if a customer receives a phone call, that customer should not be bothered with an email, as well:

| | |
|----------------------------|---|
| Transformation Name | Edit column with formula |
| Parameter: Columns | sendEmail |
| Parameter: Formula | IF(phoneCall == "TRUE", FALSE, sendEmail) |

Results:

| Customer | isActive | isInterested | dropCust | sendEmail | phoneCall |
|----------|----------|--------------|----------|-----------|-----------|
| CustA | Y | Y | FALSE | FALSE | TRUE |
| CustB | Y | N | FALSE | TRUE | FALSE |
| CustC | N | Y | FALSE | TRUE | FALSE |
| CustD | N | N | TRUE | FALSE | FALSE |