

# 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>&amp;&amp;</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:

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

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

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

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

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

<b>Parameter: New column name</b>	'dropCust'
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A savvy marketer might decide that if a customer receives a phone call, that customer should not be bothered with an email, as well:

<b>Transformation Name</b>	Edit column with formula
<b>Parameter: Columns</b>	sendEmail
<b>Parameter: Formula</b>	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