

# EXAMPLE - Comparison Functions Equal

This example demonstrates comparison functions.

## Functions:

Item	Description
EQUAL Function	Returns <code>true</code> if the first argument is equal to the second argument. Equivalent to the <code>=</code> operator.
NOTEQUAL Function	Returns <code>true</code> if the first argument is not equal to the second argument. Equivalent to the <code>&lt;&gt;</code> or <code>!=</code> operator.
ISEVEN Function	Returns <code>true</code> if the argument is an even value. Argument can be an Integer, a function returning Integers, or a column reference.
ISODD Function	Returns <code>true</code> if the argument is an odd value. Argument can be an Integer, a function returning Integers, or a column reference.

In this example, the dataset contains current measurements of the sides of rectangular areas next to the size of those areas as previously reported. Using these functions, you can perform some light analysis of the data.

## Source:

sideA	sideB	reportedArea
4	14	56
6	6	35
8	4	32
15	15	200
4	7	28
12	6	70
9	9	81

## Transformation:

In the first test, you are determining if the four-sided area is a square, based on a comparison of the measured values for `sideA` and `sideB`:

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	<code>EQUAL(sideA, sideB)</code>
<b>Parameter: New column name</b>	<code>'isSquare'</code>

Next, you can use the reported sides to calculate the area of the shape and compare it to the area previously reported:

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula

<b>Parameter: Formula</b>	NOTEQUAL(sideA * sideB, reportedArea)
<b>Parameter: New column name</b>	'isValidData'

You can also compute if the reportedArea can be divided into even square units:

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	ISEVEN(reportedArea)
<b>Parameter: New column name</b>	'isReportedAreaEven'

You can test if either measured side is an odd number of units:

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	IF((ISODD(sideA) == true) OR (ISODD(sideB) == true),TRUE,FALSE)
<b>Parameter: New column name</b>	'isSideOdd'

**Results:**

sideA	sideB	reportedArea	isSquare	isValidData	isReportedAreaEven	isSideOdd
4	14	56	FALSE	FALSE	TRUE	FALSE
6	6	35	TRUE	TRUE	TRUE	FALSE
8	4	32	FALSE	FALSE	TRUE	FALSE
15	15	200	TRUE	TRUE	TRUE	TRUE
4	7	28	FALSE	FALSE	TRUE	TRUE
12	6	70	FALSE	TRUE	TRUE	FALSE
9	9	81	TRUE	FALSE	FALSE	FALSE