

# AND Function

Returns `true` if both arguments evaluate to `true`. Equivalent to the `&&` operator.

- Each argument can be a literal Boolean, a function returning a Boolean, or a reference to a column containing Boolean values.

Since the `AND` function returns a Boolean value, it can be used as a function or a conditional.

**NOTE:** Within an expression, you might choose to use the corresponding operator, instead of this function. For more information, see *Logical Operators*.

**Wrangle vs. SQL:** This function is part of Wrangle, a proprietary data transformation language. Wrangle is not SQL. For more information, see *Wrangle Language*.

## Basic Usage

```
and(finalScoreEnglish >= 60, finalScoreMath >=60)
```

**Output:** Returns `true` if the values in the `finalScoreEnglish` and `finalScoreMath` columns are greater than or equal to 60. Otherwise, the value is `false`.

## Syntax and Arguments

```
and(value1, value2)
```

Argument	Required?	Data Type	Description
value1	Y	string	The first value must be a Boolean literal, column reference, or expression that evaluates to <code>true</code> or <code>false</code> .
value2	Y	string	The first value must be a Boolean literal, column reference, or expression that evaluates to <code>true</code> or <code>false</code> .

For more information on syntax standards, see *Language Documentation Syntax Notes*.

### value1, value2

Expressions, column references or literals to compare as Boolean values.

- Missing or mismatched values generate missing results.

### Usage Notes:

Required?	Data Type	Example Value
Yes	Function or column reference returning a Boolean value or Boolean literal	<code>myHeight &gt; 2.00</code>

## Examples

**Tip:** For additional examples, see *Common Tasks*.

### Example - Logical Functions

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

- See *AND Function*.
- See *OR Function*.
- See *NOT Function*.

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.

#### 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>	AND(isActive, isInterested)
<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>	OR(isActive, isInterested)
<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>	AND(NOT(isActive),NOT(isInterested))

<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