

# 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' |
|-----------------------------------|------------|

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     |