#### SLOPE

[Syntax](Syntax.docx):

SLOPE ( known-ys , known-xs )

Description: Computes the slope of the linear regression line through data points in known ys and known xs. The slope is the [vertical](vertical.docx) distance divided by the [horizontal](horizontal.docx) distance between any two points on the line, which is the rate of change along the regression line.

Mathematical Formula:



where x and y are the sample means AVERAGE(known-xs) and AVERAGE(known-ys).

Arguments:

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| known-xs | number, name, array, or [reference](reference.docx) to number, text, logical | Designate a set of numeric dependent data points. Logical values and text representations of numbers entered directly into the list of arguments are included. If an array or [reference](reference.docx) argument contains text, logical values, or empty cells, those values are ignored; however, cells with the value 0 are included.  |
| known-ys | number, name, array, or [reference](reference.docx) to number, text, logical | Designate a set of numeric independent data points. Logical values and text representations of numbers entered directly into the list of arguments are included. If an array or [reference](reference.docx) argument contains text, logical values, or empty cells, those values are ignored; however, cells with the value 0 are included. |

Return Type and Value: number – The slope of the linear regression line through data points in known ys and known xs.

However, if

* known-ys and known-xs are empty, the return value is unspecified.
* known-ys and known-xs have a different number of data points, the return value is unspecified.

[Example:

SLOPE({2,3,9,1,8,7,5},{6,5,11,7,5,4,4}) results in 0.305555556

end example]