#### INTERCEPT

[Syntax](Syntax.docx):

INTERCEPT ( known-ys , known-xs )

Description: Computes the point at which a line will intersect the y-axis by using existing x-values and y-values. The intercept point is based on a best-fit regression line plotted through the known x-values and known y-values.

Mathematical Formula:

The equation for the intercept of the regression line, a, is:



where the slope, [b](b.docx), is calculated as:



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

Arguments:

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| known-ys | number, name, array, [reference](reference.docx) to number | The dependent set of observations or data. 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-xs | number, name, array, [reference](reference.docx) to number | The independent set of observations or data. 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 point at which a line will intersect the y-axis by using existing x-values and y-values.

However, if

* known-ys and known-xs contain a different number of data points, the return value is unspecified.
* known-ys or known-xs contain no data points, the return value is unspecified.

[Example:

INTERCEPT({2,3,9,1,8},{6,5,11,7,5}) results in 0.048387097

end example]