How can I create a function in Excel that calculates the total amount received from a list of transactions?

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To create a function in Excel that calculates the total amount received from a list of transactions, start by selecting a cell where you want the function to be displayed. Then, click on the "Formulas" tab and select "Insert Function". In the "Insert Function" window, type "SUM" in the search bar and click "Go". Select the "SUM" function from the list and click "OK". Next, select the range of cells that contain the transaction amounts. This will be the input for the function. Finally, press "Enter" to display the total amount received in the selected cell. This function can be used to quickly and accurately calculate the total amount received from a list of transactions in Excel.

This article describes the formula syntax and usage of the **RECEIVED** function in Microsoft Excel.

Description

Returns the amount received at maturity for a fully invested security.

Syntax

RECEIVED(settlement, maturity, investment, discount,)

Important: Dates should be entered by using the DATE function, or as results of other formulas or functions. For example, use DATE(2008,5,23) for the 23rd day of May, 2008. Problems can occur if dates are entered as text.

The RECEIVED function syntax has the following arguments:

Settlement Required. The security's settlement date. The security settlement date is the date after the issue date when the security is traded to the buyer.

Maturity Required. The security's maturity date. The maturity date is the date when the security expires.

Investment Required. The amount invested in the security.

Discount Required. The security's discount rate.

Basis Optional. The type of day count basis to use.

Basis	Day count basis
0 or omitted	US (NASD) 30/360
1	Actual/actual
2	Actual/360

Basis	Day count basis
3	Actual/365
4	European 30/360

Remarks

Microsoft Excel stores dates as sequential serial numbers so they can be used in calculations. By default, January 1, 1900 is serial number 1, and January 1, 2008 is serial number 39448 because it is 39,448 days after January 1, 1900.

The settlement date is the date a buyer purchases a coupon, such as a bond. The maturity date is the date when a coupon expires. For example, suppose a 30-year bond is issued on January 1, 2008, and is purchased by a buyer six months later. The issue date would be January 1, 2008, the settlement date would be July 1, 2008, and the maturity date would be January 1, 2038, which is 30 years after the January 1, 2008, issue date.

Settlement, maturity, and basis are truncated to integers.

If settlement or maturity is not a valid date, RECEIVED returns the #VALUE! error value.

If investment ≤ 0 or if discount ≤ 0, RECEIVED returns the #NUM! error value.

If basis < 0 or if basis > 4, RECEIVED returns the #NUM! error value.

If settlement ≥ maturity, RECEIVED returns the #NUM! error value.

RECEIVED is calculated as follows:

$$RECEIVED = \frac{investment}{1 - \left(discount \times \frac{DIM}{B}\right)}$$

where:

B = number of days in a year, depending on the year basis.

DIM = number of days from issue to maturity.