



Queen Mary
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Microsoft Excel - Formulas

Cell Auditing

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Common Errors

A formula may return any of the following error values:

- **#####**

Cell is too narrow to display the results of the formula. To fix this simply make the column wider and the “real” value will be displayed instead of the ##### signs. Note that even when the ##### signs are being displayed, Excel still uses the “real” value to calculate formulas that reference this cell.

- **#NAME?**

The formula contains an undefined range or cell name(e.g. =BB+10 instead of =B3+10).

The formula contains text that Excel interprets as an undefined name (e.g. a misspelled function name).

The formula contains text that isn't enclosed in quotation marks.

Common Errors

- **#VALUE!**

An argument for a function is of an incorrect data type, or the formula attempts to perform an operation using incorrect data (e.g.: =A1*3 where A1 contains the word “hello”).

- **#DIV/0!**

Trying to divide by zero. Example: =3/A1 where A1 contains 0 (zero)

- **#REF!**

A #REF! error occurs when a formula uses an invalid cell reference.

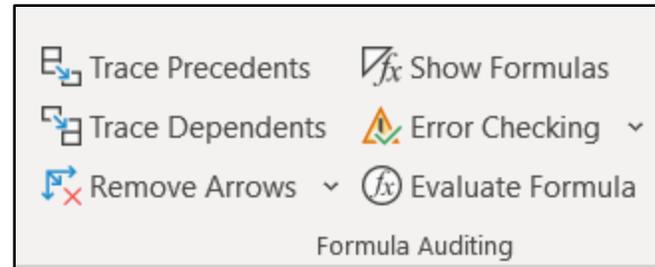
- **#NUM!**

A nonnumeric argument is used in a function where a numeric argument is expected.

Excel Auditing Tools

Excel includes a number of tools that can help you track down formula errors.

Auditing tools can be found on the **Formula** tab in **Formula Auditing** group:



- Viewing formulas;

It is used to display the formulas rather than the results of the formulas.

To toggle the display of formulas, choose Formulas ⇌ Formula Auditing ⇌ Show Formulas.

- Tracing cell relationship (Cell precedents and Cell dependents);
- Tracing error values.

Trace Precedents

- The Trace Precedents are used to locate the source of an error to understand how formulas are arranged before making changes to the Excel worksheet.
- **Trace precedents** are cells or group of cells that affect the value of the active cell. In other words, the tool helps audit a formula in order to understand the relationship between the active cell and other cells.
- To access trace precedents, go to Formulas Tab > Formulas Auditing > Trace Precedents.

Price	Return
6,202.50	0.0109
• 6,135.50	0.0025
• 6,120.50	0.0045
6,093.00	-0.0310

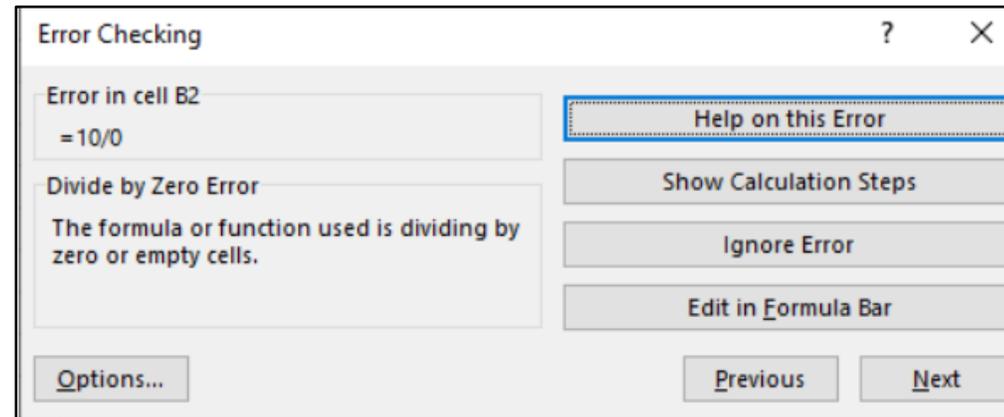
Trace Dependents

- The Trace Dependents are used to show the cells that are affected by an active cell by displaying arrows linking the related cells to the active cell.
- **Trace Dependents** help to analyse the relationship between the cells in a worksheet.
- To access trace dependents, go to Formulas Tab > Formulas Auditing > Trace Dependents.

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Error Checking

The Error Checking Dialog box is used to find and investigate any errors one by one.



- Help on this Error - Displays a help topic relating to the specific type of error.
- Show Calculation Steps - Displays the Evaluate Formula dialog box.
- Ignore Error – It removes the green indicator on the top left hand corner of the cell containing the error.
- Edit in Formula Bar - Allows you to edit the formula in the formula bar.