

Excel & Business Math
Video/Class Project #03
Excel's Golden Rule for Formulas, Formula Inputs & Excel Models

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1) Excel's Golden Rule




1. If a formula input can change, put it into a cell and refer to it in the formula with a cell reference.
2. If a formula input will not change, you can type it into a formula (like 12 months in a year or 7 days in a week). Typing a Formula Input into a formula is called "Hard Coding" Formula Input into formula.

Note:

If you cannot decide or are not sure whether or not the formula input will change, be safe and just put it in a cell, label it and refer to it in your formula with a cell reference.

3. Always label your formula inputs so that the formula input can be clearly understood by any user of the Excel spreadsheet solution; by doing this we properly "document the Excel spreadsheet solution (model)".

Excel's Golden Rule:

-  If a formula input can change, put it into a cell and refer to it in the formula with a cell reference.
-  If a formula input will not change, you can type it into a formula (like 12 months in a year or 7 days in a week).
-  Always label your formula inputs so that the formula input can be clearly understood by any user of the Excel spreadsheet solution.

2) What If Analysis

1. It is when we ask the question, "What If?"
2. For example, if we ask the question, what will all the students class scores be equal to if we change the extra credit points from 35 points to 40 points.
3. When we follow Excel's Golden Rule it is easy for us to ask what if questions because we can simply change a formula input and see the answer to our What If Questions.

3) What is an Excel Model?

1. It is an Excel solution that we build to solve a problem that we will use more than one time.
2. Examples of Excel Models:
 - 1) Extra Credit Student Score Table
 - 2) Monthly Insurance Expense Table
3. Anytime we follow Excel's Golden Rule we are creating an Excel Model that we can use for What If Analysis or simply to change the formula inputs for a new time period.

4) Reasons we use Excel's Golden Rule:

1. It is easy to change the formula inputs when they are listed on the face of the worksheet.
2. It is very hard to accurately and consistently change formula inputs if there are typed directly into formula, known as "hard coding" formula inputs into formulas.
3. The labels for the formula inputs indicate exactly what the formula input represents.
4. It is easy to understand how the spreadsheet is constructed if the formula inputs are visible on the face of the worksheet. When we follow Excel's Golden Rule, we document the Excel Model, so it is easy for us and others to understand.
5. Research has shown that one of the main causes of faulty spreadsheets is hard coding formula inputs into formulas: <http://www.strategy-at-risk.com/2009/03/03/the-risk-of-spreadsheet-errors/>
6. Because the inventors of the spreadsheet, Dan Bricklin and Bob Frankston, intended the spreadsheet to follow Excel's Golden Rule.