Troubleshooting SOLVER

What should I think about before starting SOLVER?

- Most common problem: **the objective cell is not set up properly**
- Inspect the objective cell formula for errors
- Make sure that changing the parameters ("decision cells") changes the objective cell appropriately
- Try some manual optimization to make sure your starting values seem reasonable
- Consider whether you have a scaling problem

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Why is SOLVER taking so long?

- Remember that ESC will halt the SOLVER calculations
- Set a time limit to reach the solution
- Some functions converge slowly. Consider relaxing the Convergence criterion
- Constrain your solution, particularly if you are using the Multistart option
- Change to using Forward Derivatives, which is less accurate but requires half as many derivatives

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The solution looks wrong, how can I be sure of it?

- Make sure the solution is not constrained to be non-negative (this box is checked by default)
- Again, check your objective cell formula for errors
- Try a different start value, or use the Multistart approach (ideally with contraints)
- GRG requires that the function is differentiable (smooth).Consider whether the function has discontinuities or is otherwise non-smooth. Common functions that cause this are `IF`, `ABS`, `MEDIAN` and other order-based functions. If this is a problem, then switch to an Evolutionary method.

SOLVER doesn't work, it won't even start the calculations or it won't give an answer even though I know it should.

- SOLVER defines a number of named constants. Sometimes deleting these names will "reset" SOLVER in a way that allows it to work better.
- The names are hidden, and Excel's Name Manager doesn't display them. So you either need to use an add-in that includes better name management capabilities, or you can use VBA to delete the names.
- The CLS-Stats add-in has a utility that unhides hidden names. After running it, delete all the SOLVER names (it should be obvious which these are). Doing so will cause SOLVER to forget any custom settings you have applied to this worksheet.
- Sometimes SOLVER gets confused between different open Workbooks, thinking that one address is actually referring to a different workbook. You might want to think about closing all workbooks other than the one you are working on.
- Sometimes you need to start completely over: copy your data and formulas to a new spreadsheet, close Excel, open your new workbook and try SOLVER again.