Calculation Spellchecker: user guide

Shown in Word as “Check a result” · Version 1.0 (beta) · October 2026

Calculation Spellchecker checks the equations, statistics and calculations in manuscripts, reports, grant proposals and theses. It opens in a panel beside your Word document. Every check is a transparent calculation that runs on your computer, with the working shown and the papers it is based on. **No AI, you verify.**

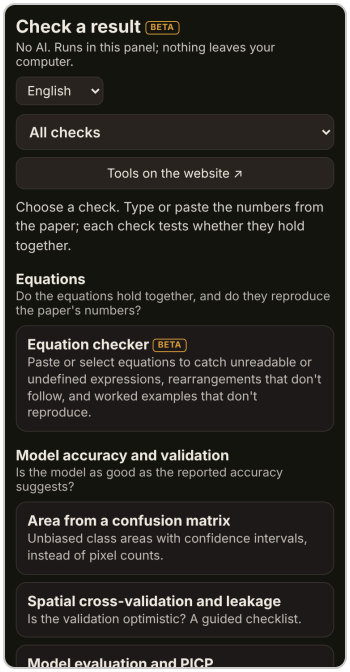
1. Install

- **From Microsoft's add-in store:** in Word, go to **Home → Add-ins**, search for *Calculation Spellchecker* and press **Add**.
- **Manual install (before store approval):** download *manifest.xml* from **rafikiardhi.earth/install-addin.html** and follow the steps there for Word on the web, Mac or Windows.

You only install it once. The add-in loads from rafikiardhi.earth, so new checks and fixes appear the next time you open it.

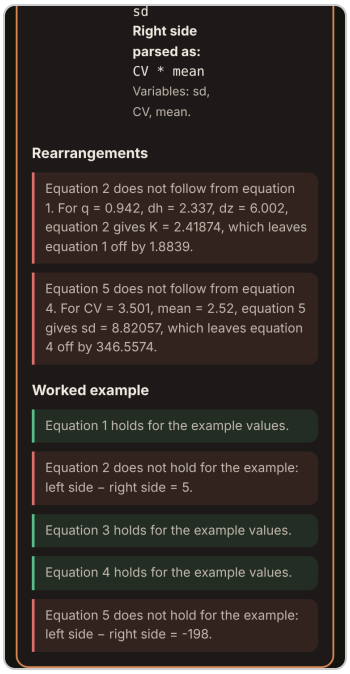
2. Open it

On Word's **Home** tab, press **Check a result**. The panel opens on the right.



- **Language:** the menu at the top switches between English, Kiswahili and Spanish.
- **Choose a check:** pick one from the list, or from the cards on the home screen. **← All checks** takes you back.
- **Tools on the website ↗** opens the full tools at rafikiardhi.earth.

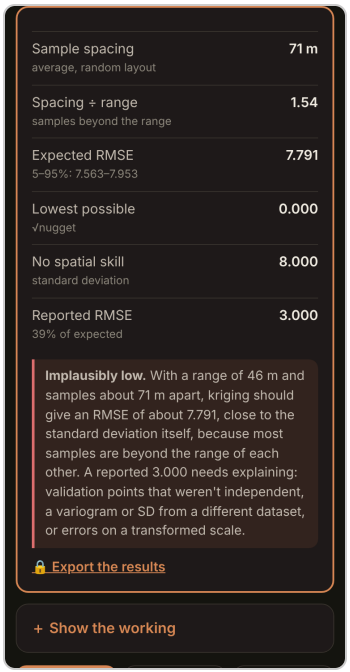
3. The equation checker



1. **One equation:** select it in your document and press **Check the highlighted text**, or tick *Check equations automatically when I select them*.
2. **Every equation:** press **Check the whole document**. Each equation is marked by its result:
   holds evaluates cleanly not checked or partly undefined does not hold
   Click a row in the results to jump to that equation. **Clear the colours** removes the marks.
3. **Comments:** press **Add the findings as a comment** to attach the results to the document.
4. **Without a document:** paste equations into the box, one per line. Add a worked example from the paper (for example *q = 0.5, dz = 10, dh = -2*) to check that its numbers reproduce.

It reports equations it cannot read, rearrangements that do not follow from an earlier equation, and worked examples that do not reproduce.

4. The plausibility checks



1. Choose a check and type or paste the values from the document into the boxes.
2. Results appear as you type. Checks with heavier calculations have a **Check**, **Calculate** or **Evaluate** button.
3. **Example** fills in values from a worked example; **Start over** clears the form.
4. **Show the working** lists every step of the calculation; the references are at the bottom of each check.

The checks:

- **Model accuracy and validation:** Area from a confusion matrix, Spatial cross-validation and leakage, Model evaluation and PICP, R^2, RMSE and SD, Classification accuracy.
- **Spatial structure and sampling:** Effective sample size, Finding the right pixel size, Kriging error vs. the variogram, Samples for a map (from the variogram), Can the change be detected?.
- **Soil data and units:** Carbon stock arithmetic, Back-transformation, Lab method conversions, Coordinates and distances.
- **Study design and statistical reasoning:** Independence and study design, Statistical assumptions check, Model comparison audit.

5. Free and paid features

The beta is free and stays free: the full equation checker, and every check with values you type or paste. Features marked 🔒 (reading values from the document, adding comments and exporting results on the plausibility checks) belong to the paid version. Details are at **rafikiardhi.earth/membership.html**.

6. Privacy

Everything runs on your computer. Nothing you select, type or paste is sent to RafikiArdhi or anyone else. No account is needed, and the add-in contains no AI, tracking or advertising. Privacy policy: **rafikiardhi.earth/privacy.html**.

7. Help

Email **tflynn@rafikiardhi.earth**, or see **rafikiardhi.earth/install-addin.html**.

RafikiArdhi LLC · Carbondale, Colorado, USA · rafikiardhi.earth · tflynn@rafikiardhi.earth
How to cite: Flynn, T. (2026). *Check a result for Word: plausibility checks and an equation checker for soil and environmental results* [Word add-in]. RafikiArdhi. https://doi.org/10.5281/zenodo.23813041
Flynn, T. (2026). *Check a result for Excel: plausibility checks for research results* [Excel add-in]. RafikiArdhi. https://doi.org/10.5281/zenodo.23898323