Please provide R solution for the following problem.

1. Input file: mock\_data\_4table.csv
2. Write a function to add new rows that combine the following values in “result” column basing on “resulttype”
   1. Difference (95% CI): **Difference** (**95% CI Low**, **95% CI High**)
   2. LSMEAN (SE/SD): LS MEAN (Std Err)
   3. Hint: pivot the data first to construct combined variable(s)
3. [can skip if running out time] Write a function to add new rows for “p-value”
   1. If p-value is less than .05, add ‘\*’
   2. If p-value is less than .01, add ‘\*\*’
   3. If p-value is less than .001, add ‘\*\*\*’
4. Save a screenshot of what the new data (merged with original data) look like.
5. Produce a table (prefer HTML format) as in the next page (feel free to use **gt** package).
6. Submit your code, output, and screenshot.
   1. Please make code organized so we can run it with minimal effort (e.g., just change the path for the input data)

| Title placeholder | | | | |
| --- | --- | --- | --- | --- |
| Subtitle placeholder | | | | |
| **analysistype** | **resulttype** | **PBO** | **TRT1** | **TRT2** |
| **Baseline** | | | | |
| - | N | 170 | 190 | 294 |
| **Week 4** | | | | |
| Percent change | LSMEAN (SE/SD) | -5.55 (0.21) | -1.6 (1.38) | -7.58 (0.61) |
| Percent change | p-value \* | -0.00 \*\*\* | 0.19 ,0.00 \*\*\* | -0.28 \*\*\*,0.00 \*\*\* |
| Percent change | Difference (95% CI) | - | -0.18 (-7.54,-1.03) | 0.87 (-0.71,0.33) |
| **Week 8** | | | | |
| Percent change | LSMEAN (SE/SD) | 3.68 (1.01) | -10.94 (-2.27) | -19.96 (0.61) |
| Percent change | p-value \* | 0.00 \*\*\* | 0.91 ,-0.00 \*\*\* | 0.96 ,-0.00 \*\*\* |
| Percent change | Difference (95% CI) | - | 1.28 (-4.63,2.98) | 0.13 (-12.65,8.45) |
| **Week 12** | | | | |
| Percent change | LSMEAN (SE/SD) | -10.21 (-0.33) | -6.62 (1.38) | -49.97 (6.79) |
| Percent change | p-value \* | 0.00 \*\*\* | 0.57 ,-0.00 \*\*\* | -0.07 \*\*\*,0.00 \*\*\* |
| Percent change | Difference (95% CI) | - | -2.1 (-0.37,8.43) | -0.09 (-19.29,-0.65) |
| **Week 16** | | | | |
| Percent change | LSMEAN (SE/SD) | -22.86 (1.6) | -22.34 (1.49) | -27.49 (1.48) |
| Percent change | p-value \* | 0.00 \*\*\* | 0.44 ,0.00 \*\*\* | 0.63 ,0.00 \*\*\* |
| Percent change | Difference (95% CI) | - | 0.97 (-2.63,-6.93) | 0.21 (-3.52,16.88) |
| **Week 24** | | | | |
| Percent change | LSMEAN (SE/SD) | -8.52 (4.73) | 28.24 (4.1) | -37.28 (2.07) |
| Percent change | p-value \* | 0.00 \*\*\* | -0.04 \*\*\*,0.00 \*\*\* | 0.30 ,0.00 \*\*\* |
| Percent change | Difference (95% CI) | - | -0.58 (3.23,22.29) | 9.02 (-1.61,5.04) |
| **Week 36** | | | | |
| Percent change | LSMEAN (SE/SD) | -67.86 (5.4) | -80.36 (-3.16) | 5.06 (-1.11) |
| Percent change | p-value \* | 0.00 \*\*\* | 0.02 \*,0.00 \*\*\* | 0.26 ,0.00 \*\*\* |
| Percent change | Difference (95% CI) | - | 8.86 (-1.2,13.53) | 9.24 (-6.03,15.15) |
| Source note placeholder | | | | |