

Homework 6

Commit 1

```
-- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
v dplyr     1.1.4     v readr      2.1.5
v forcats   1.0.0     v stringr    1.5.2
v lubridate  1.9.4     v tibble     3.3.0
v purrr     1.1.0     v tidyverse  1.3.1
-- Conflicts -----
x dplyr::filter() masks stats::filter()
x dplyr::lag()    masks stats::lag()
i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become
here() starts at /Users/dodji/Desktop/hw_6
```

Attaching package: 'kableExtra'

The following object is masked from 'package:dplyr':

```
group_rows

Rows: 5748 Columns: 12
-- Column specification -----
Delimiter: ","
chr (2): sex, frl
dbl (10): schidkn, reg_size, reg_size_aid, small_size, white, black, other, ...
i Use `spec()` to retrieve the full column specification for this data.
i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

sex	frl	math_mean	math_sd	rdg_mean	rdg_sd
boy	no	492.85	46.34	441.46	32.32
boy	yes	469.87	46.09	425.38	26.63
girl	no	501.21	45.96	448.54	34.52
girl	yes	477.51	46.30	430.80	27.42

Commit 2

As suggested by Divecha et al. (2023), tables and figures were used to increase the readability of our document. We used R and packages called tidyverse and ggplot2 to create tables and figures (R Core Team, 2025; Wickham, 2016; Wickham et al., 2019).

Commit 3

```
`summarise()` has grouped output by 'sex'. You can override using the ` .groups` argument.
```

Table interpretation

The table shows that both boys and girls who are not eligible for free/reduced lunch have higher average math and reading scores. Girls tend to slightly outperform boys in both subjects, while FRL students have lower average scores, highlighting socioeconomic disparities in achievement.

Commit 4

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#References

Divecha, C., Tullu, M., & Karande, S. (2023). Utilizing tables, figures, charts and graphs to enhance the readability of a research paper. In *Journal of postgraduate medicine* (3; Vol. 69, pp. 125–131). Medknow.

R Core Team. (2025). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. <https://www.R-project.org/>

Wickham, H. (2016). *ggplot2: Elegant graphics for data analysis*. Springer-Verlag New York. <https://ggplot2.tidyverse.org>

Wickham, H., Averick, M., Bryan, J., Chang, W., McGowan, L. D., François, R., Grolemund, G., Hayes, A., Henry, L., Hester, J., Kuhn, M., Pedersen, T. L., Miller, E., Bache, S. M., Müller, K., Ooms, J., Robinson, D., Seidel, D. P., Spinu, V., ... Yutani, H. (2019). Welcome to the tidyverse. *Journal of Open Source Software*, 4(43), 1686. <https://doi.org/10.21105/joss.01686>