

# Practicing Data Wrangling with Tree Equity Data

## Instructions

In this worksheet, you'll practice writing **tidyverse-style R code** for data wrangling tasks. Each question guides you through filtering, selecting, mutating, and summarizing the `ca_tes` dataset.

**Don't stress yourself out over perfect syntax** – the goal is to practice what you've learned about data wrangling so far

## Practice Questions

### 1. Filter for neighborhoods with low tree equity scores

Show only neighborhoods where the `tes` (Tree Equity Score) is **less than 50**.

**Hint:** Use `filter()`

### 2. Focus on specific columns of interest

From the filtered data, keep only the following columns: `treecanopy`, `tes`, and `unemplnorm`.

**Hint:** Use `select()`

### 3. Calculate percent of tree coverage goal met

Compute a new column that represents **the percent of the tree coverage goal that has been met**.

**Hint:** Use `mutate()`

- You'll need to make an assumption about how to calculate this — discuss with a partner if unsure!

#### 4. Compute average tree equity score by place

Group the data by **place** (city or neighborhood), and compute the **average tes score** in each one.

**Hint:** Use `group_by()` and `summarise()`

#### 5. How does tree equity relate to both poverty and health disparity?

In this question, you'll explore the relationship between **Tree Equity Score (tes)**, **poverty**, and **health disparity**.

- Create a new variable called `combined_index` that combines `pctpovnorm` and `health_nor`.
- Cut the dataset down to just the relevant variables: `place`, `combined_index`, and `tes`.
- Organize the data so you can easily compare which places have the **highest combined index**.
  - **Hint:** Use `arrange()` to sort by the index in descending order

#### 3. Tree Equity vs. Linguistic Isolation

Explore whether there's a relationship between **linguistic isolation** and **tree equity** in different areas.

- Use `ggplot()` to visualize the relationship between `lingnorm` (linguistic isolation) and `tes`
  - **Hint:** Choose the best type of plot for these two numerical variables.
- Add meaningful labels to your plot:
  - Use `labs()` to set an informative **title** and **axis labels**.