Homework

For this homework assignment, you will be using the data set on page 55, which explores weight gain among rats in two different diets, This data is provided in the HSAUR package, which you need to install before you do the homework.

- 1. Load the data into R. The file is called **weightgain**, and the two categories are **Beef** and **Cereal** (be careful with capitalization and syntax ,if you are unclear of the variables, use the **str** command). For this problem we will ignore the third variable High or Low. Also note the data is all in the same unit unlike the roomdata. Hence no conversion is needed.
- 2. Create two groups as we did for the roomdata, but this time we will have one group for the **Cereal** diet one for the **Beef** diet.
- 3. Compute the difference between the mean of the Cereal group and the mean of the Beef group and store into T (just as we did for the roomdata)
- 4. Randomly permute **weightgain** as we did for the y variable in the roomdata but do this **2 times**.
- 5. Load the **coin** package, so you can run the **independence_test**. To load the coin package use install.packages("coin")
- 6. Perform an independence test for this data set and report whether or not there is a significant difference among the two diets concerning weight gain.

Hint: Look on page 46 for #1-4 and on page 48 for #5-6

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Although this looks daunting, follow the hints and remember to change variable names where appropriate, and you will be fine.