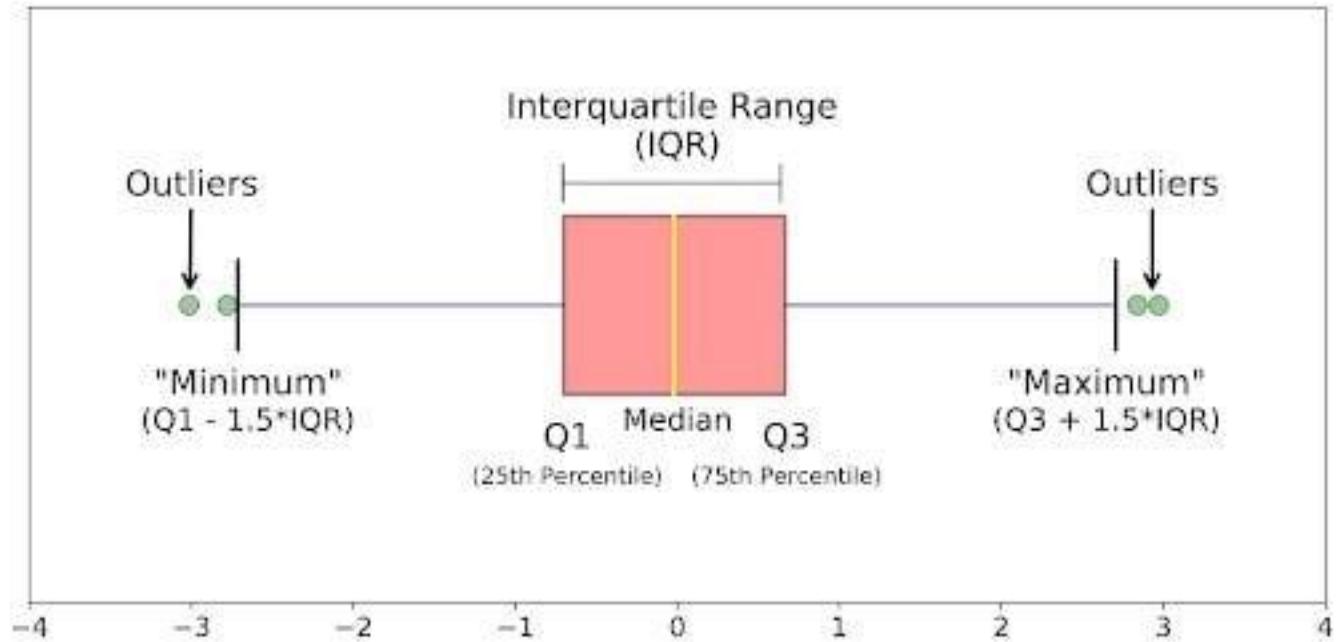


# Визуализация данных



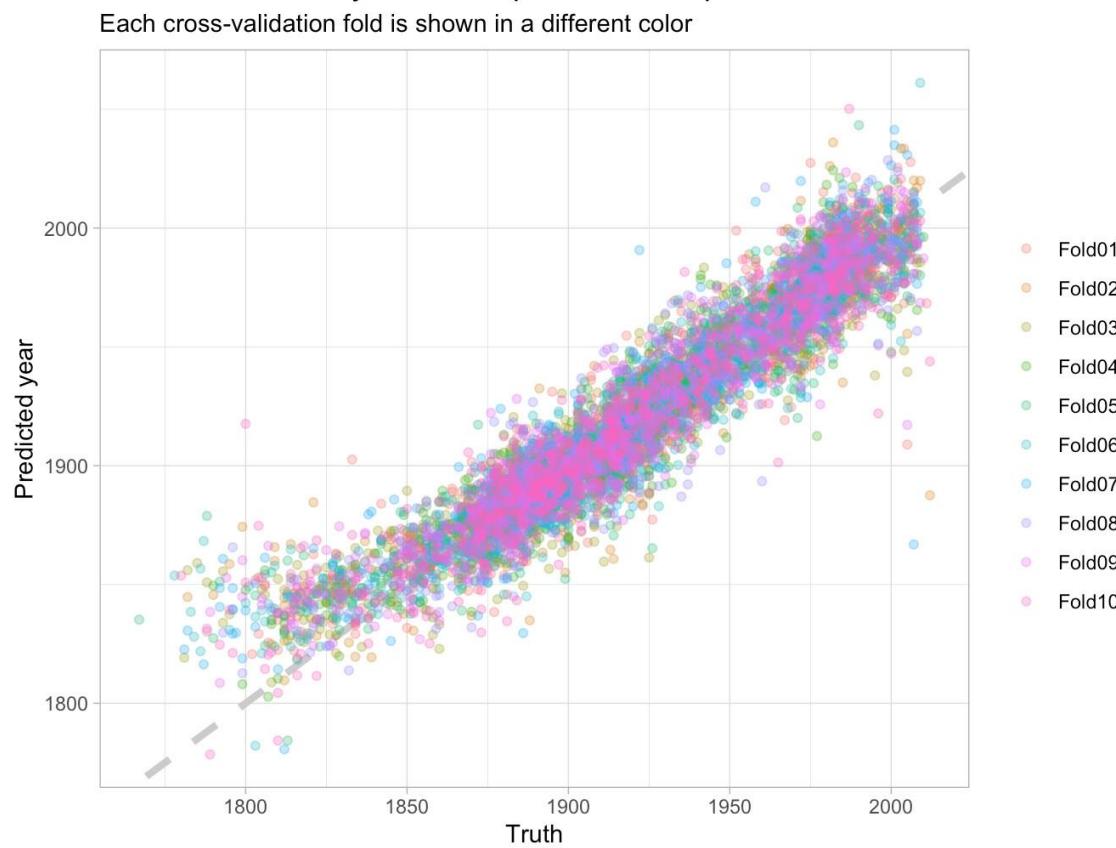
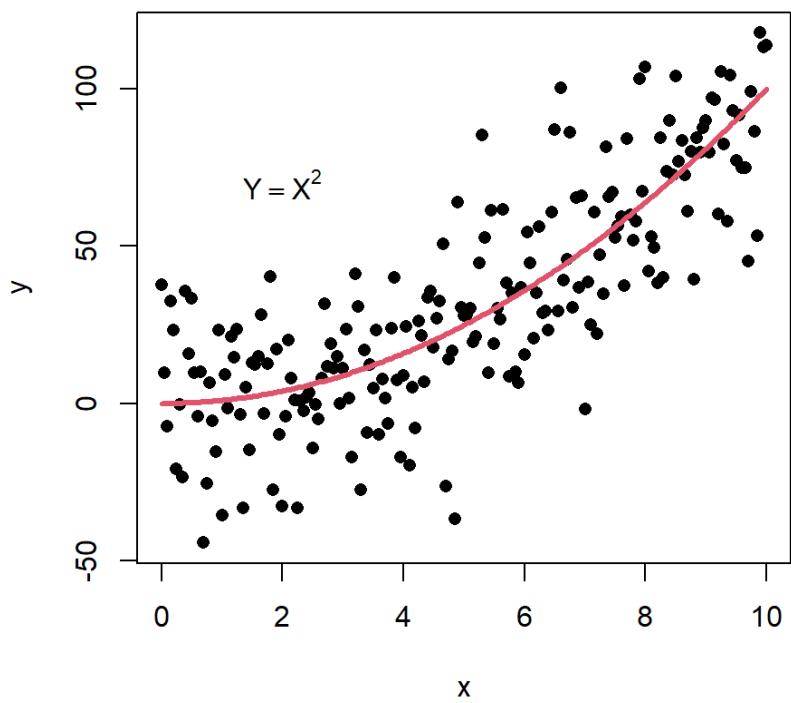
# Виды графиков

- Boxplot / Ящик с усами



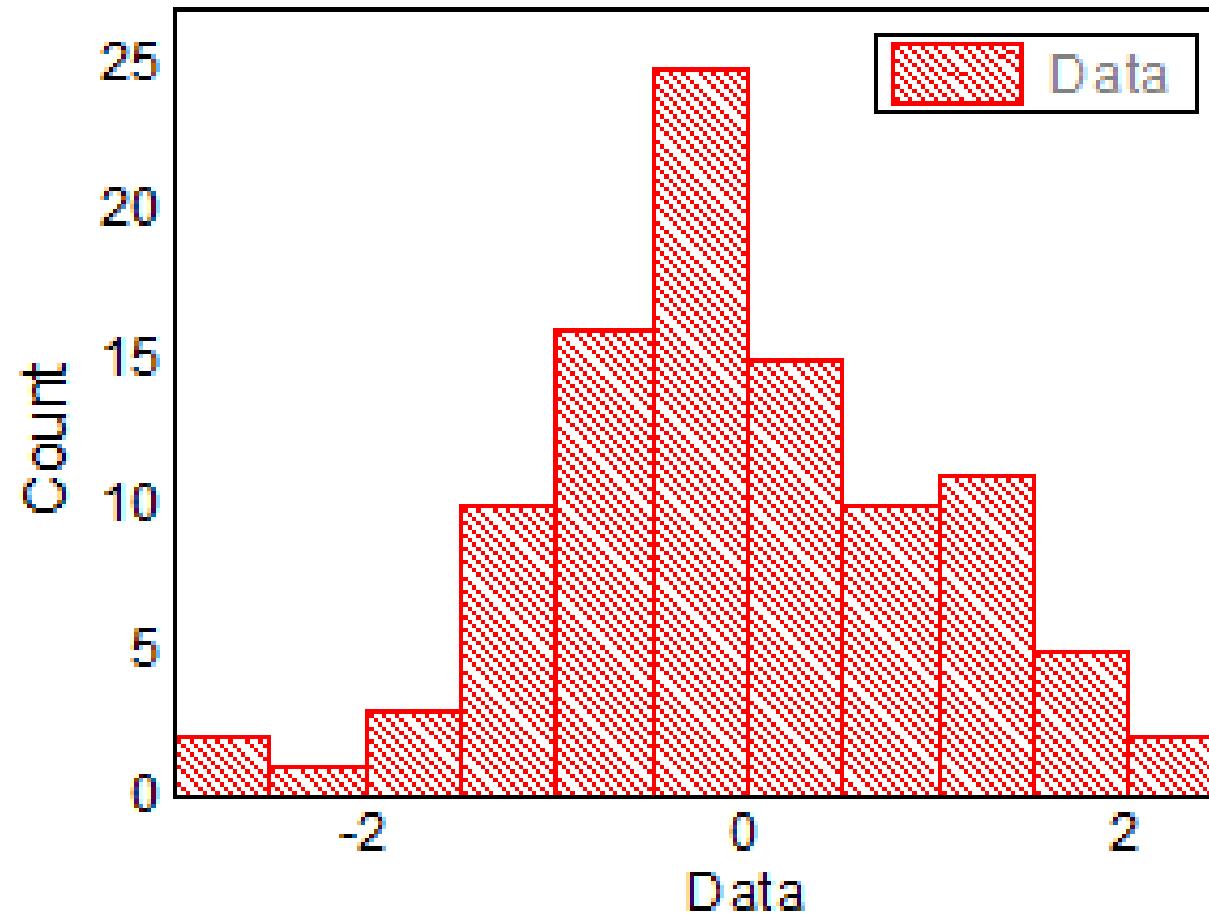
# Виды графиков

- Point plot / scatter plot / график рассеяния



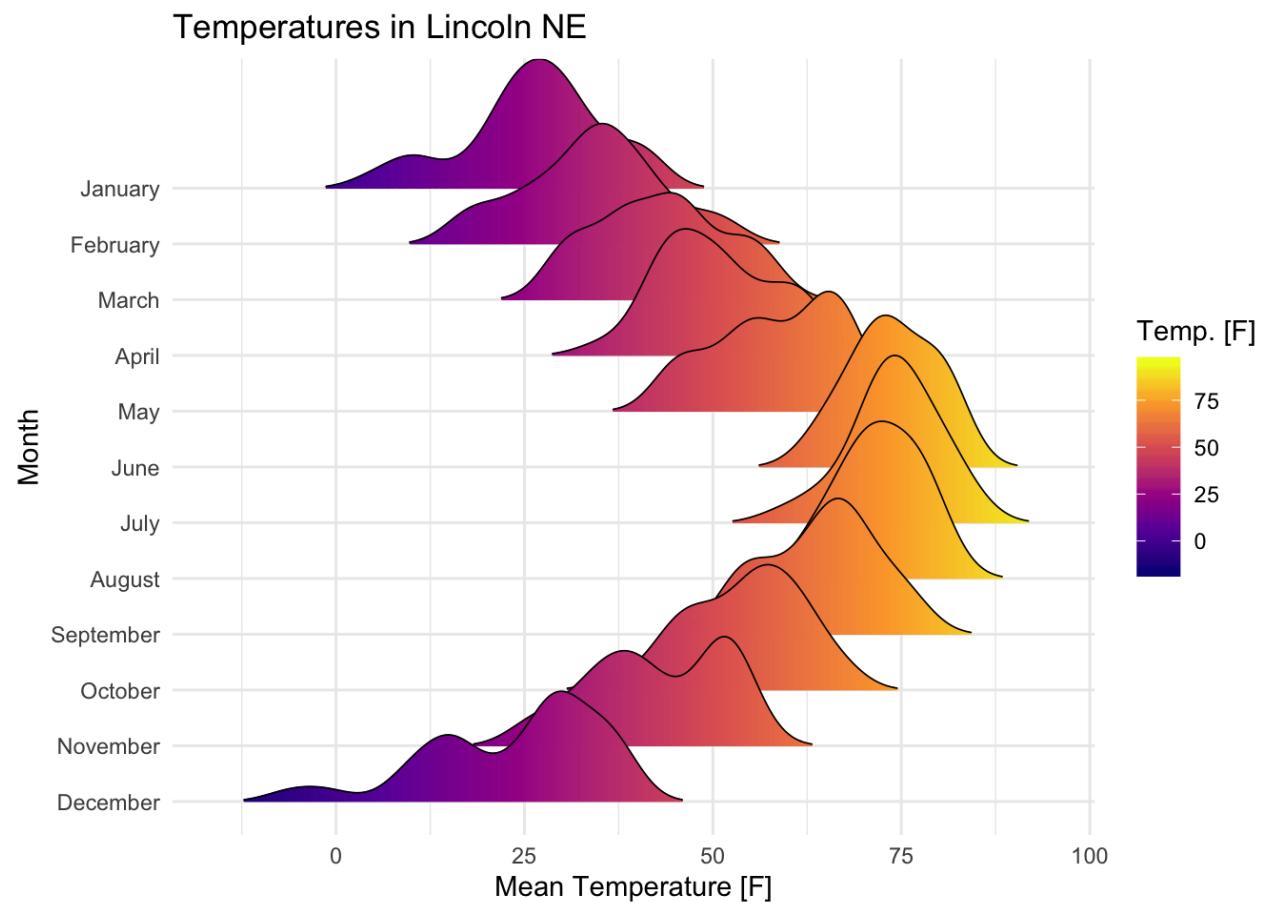
# Виды графиков

- Гистограмма



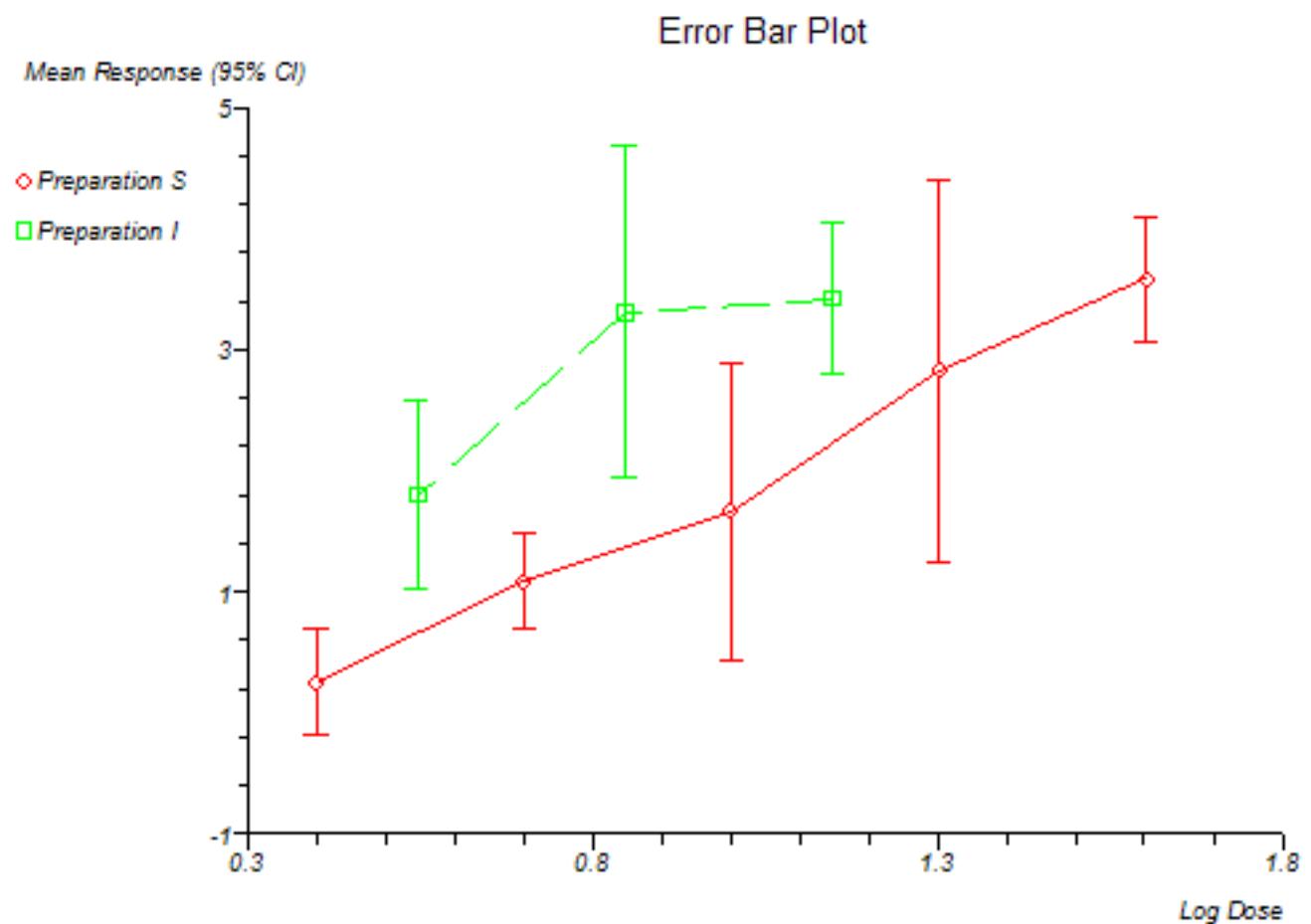
# Виды графиков

- График плотности распределения



# Виды графиков

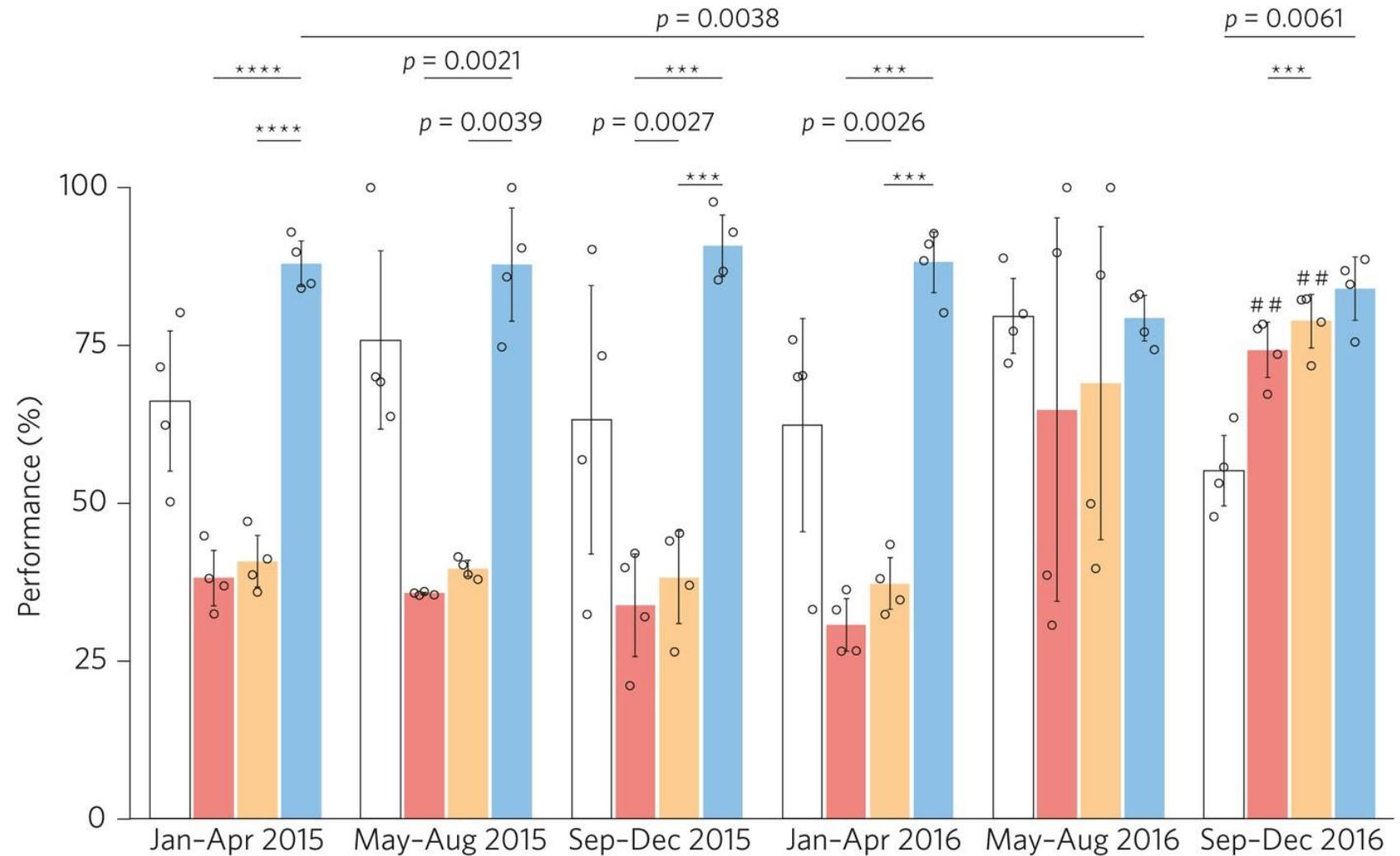
- Errorbar



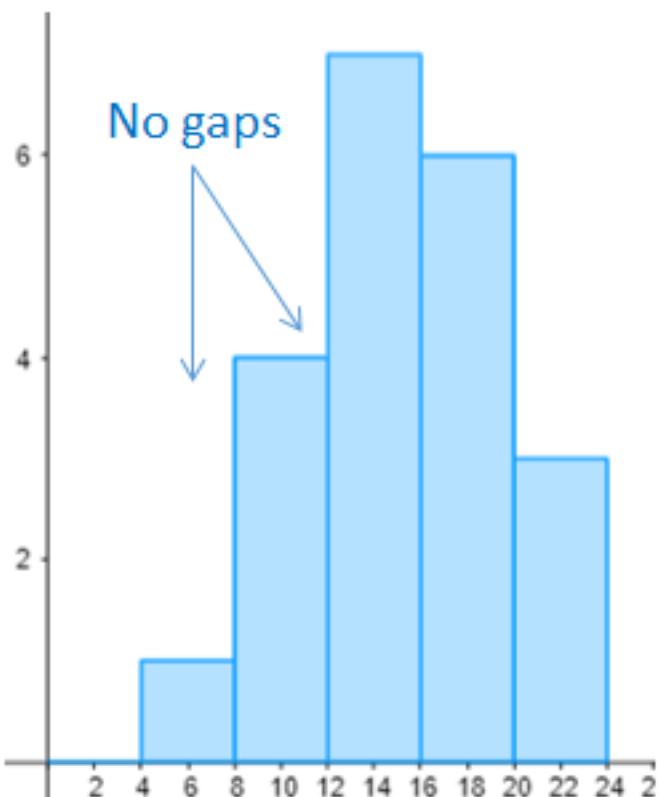
# Виды графиков

- Bar plot

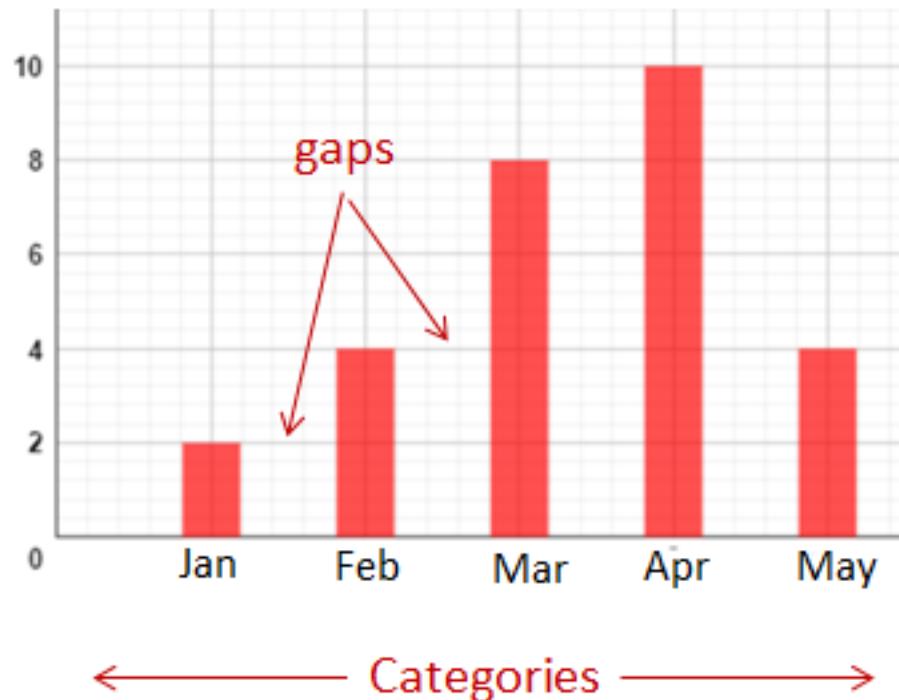
□ Flights of stairs climbed ■ Walking and running distance □ Steps taken □ Sleep quality



# Histogram vs. Bar Chart

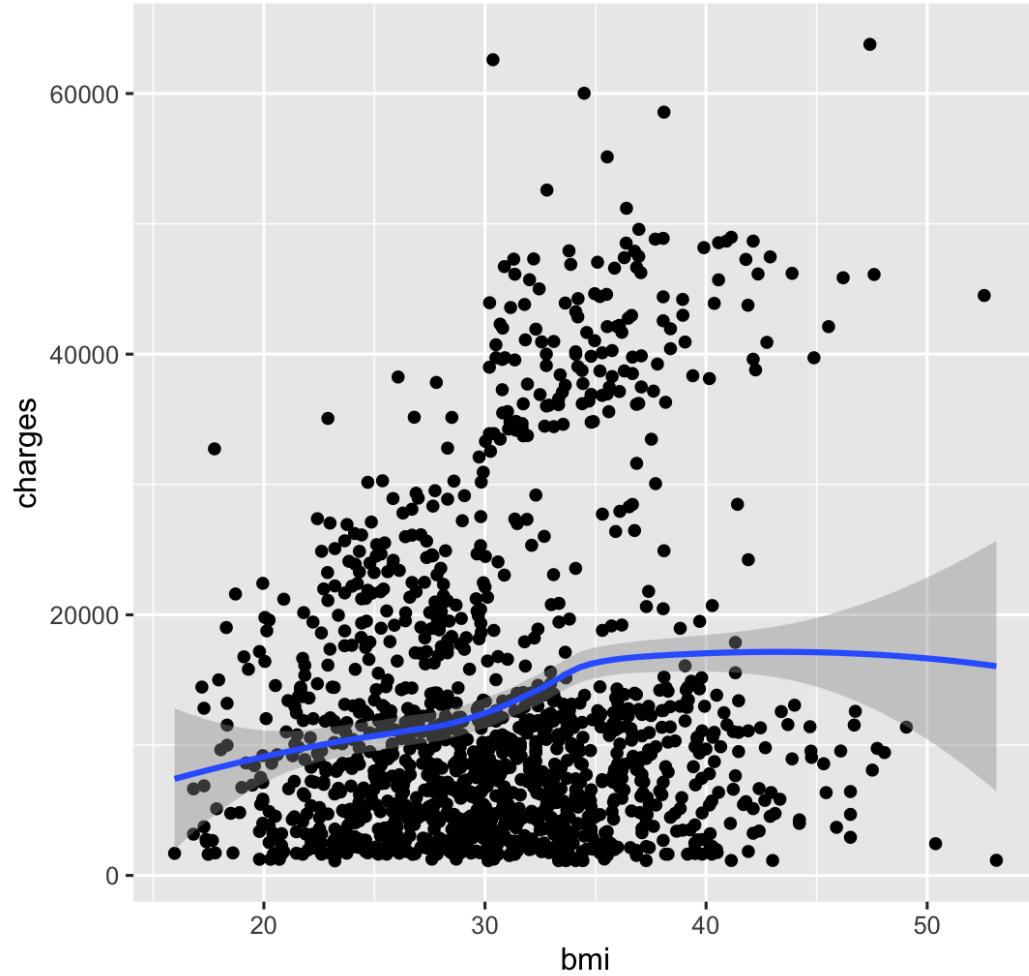


Histogram

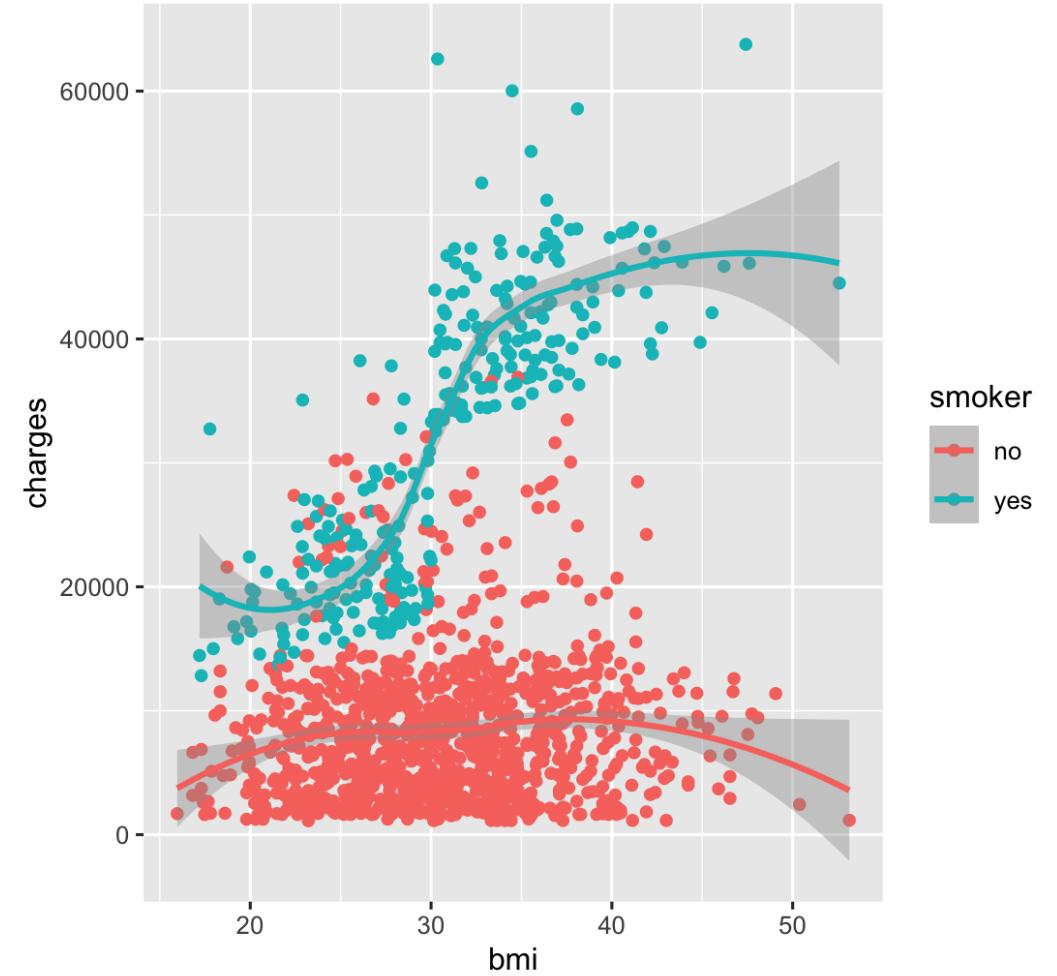


Bar Chart

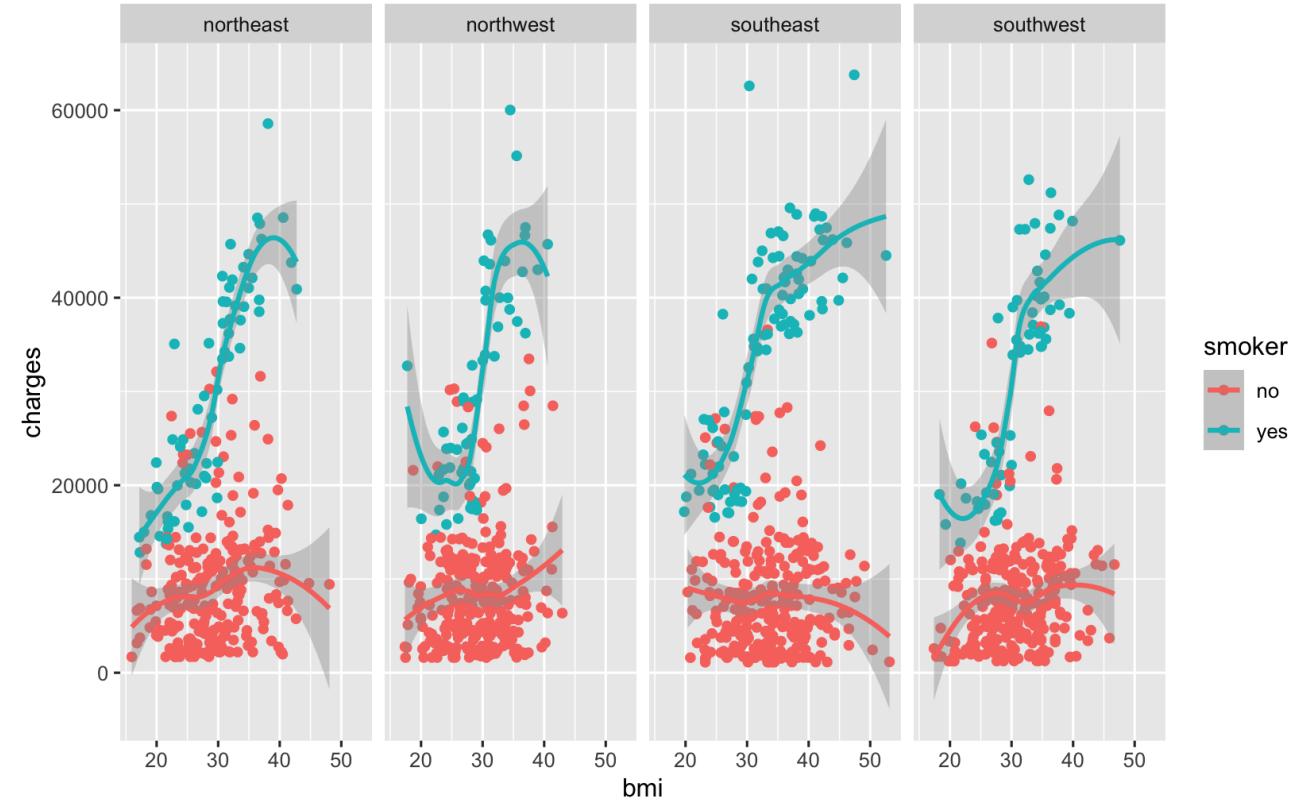
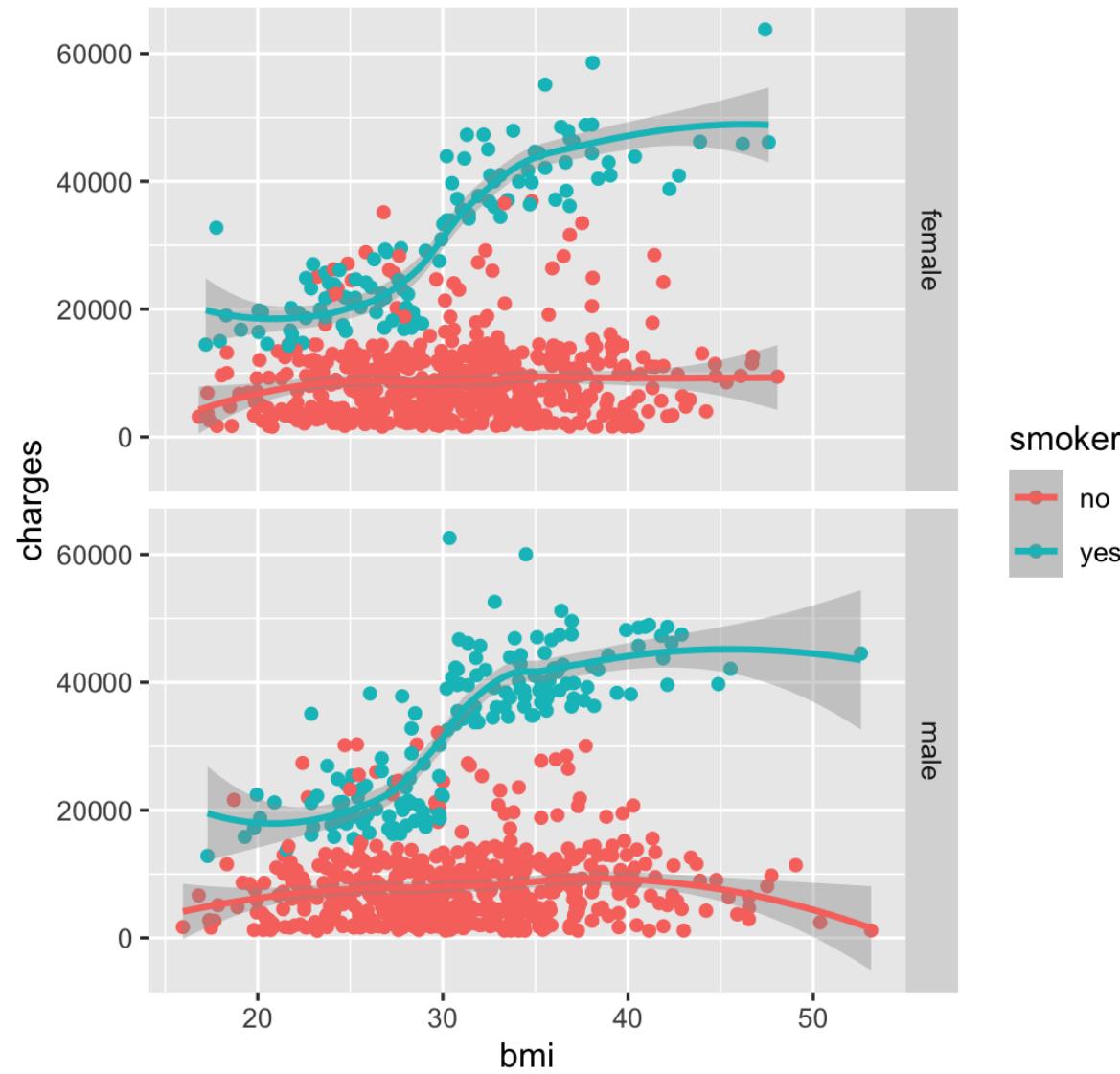
# 2D-graphs



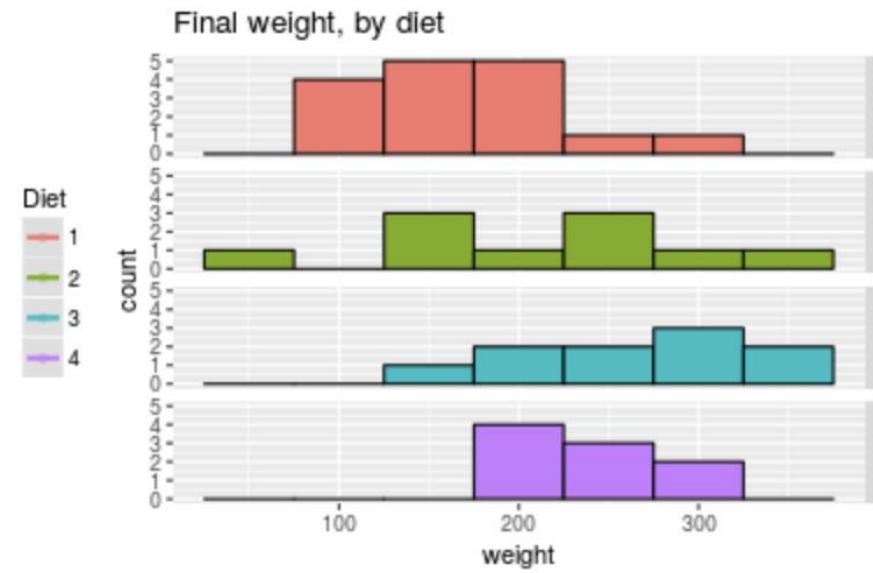
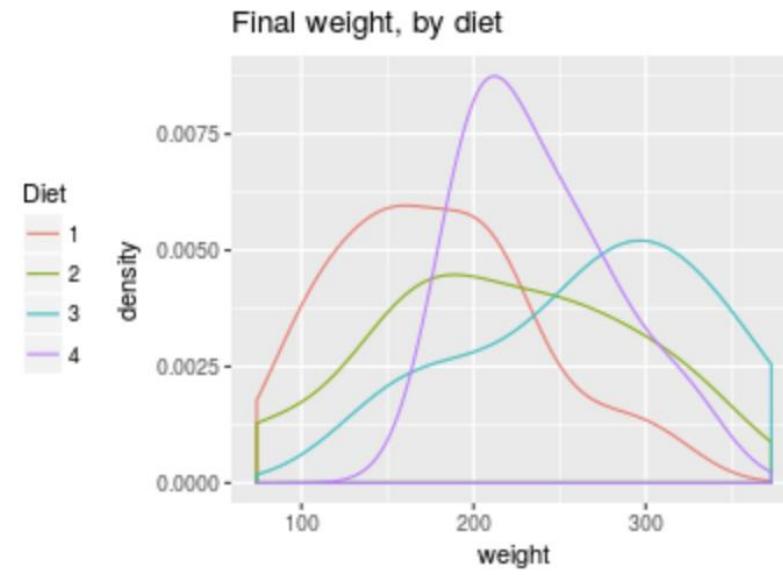
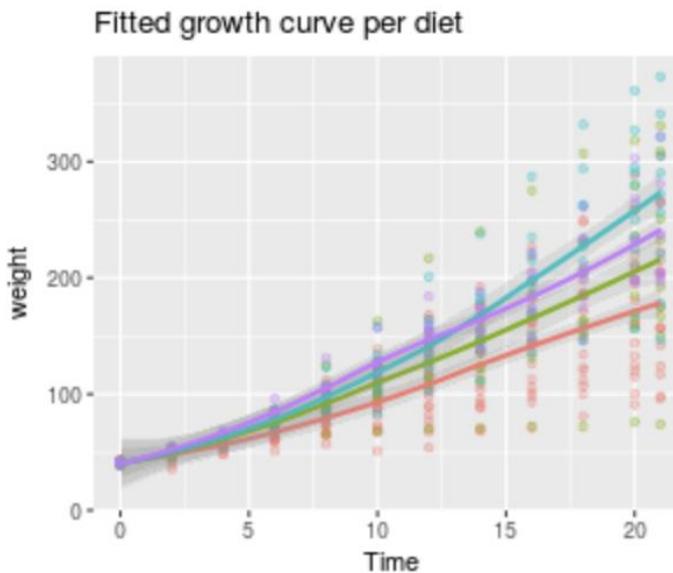
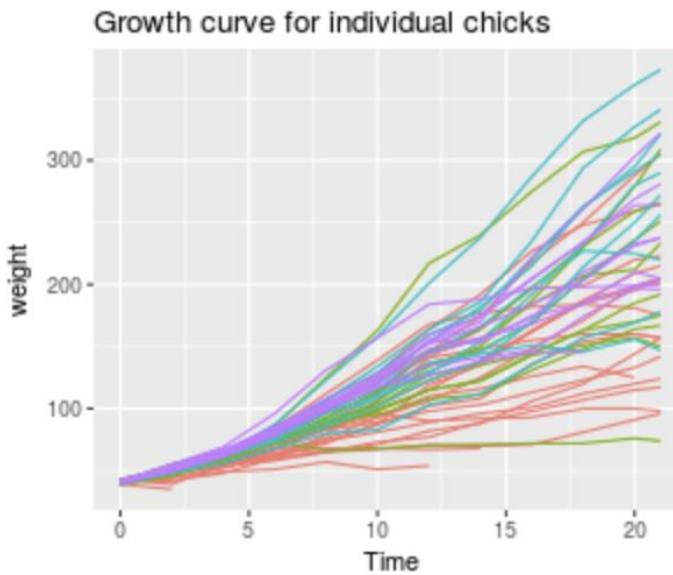
# 3D-graphs



# 4D-graphs (facets)

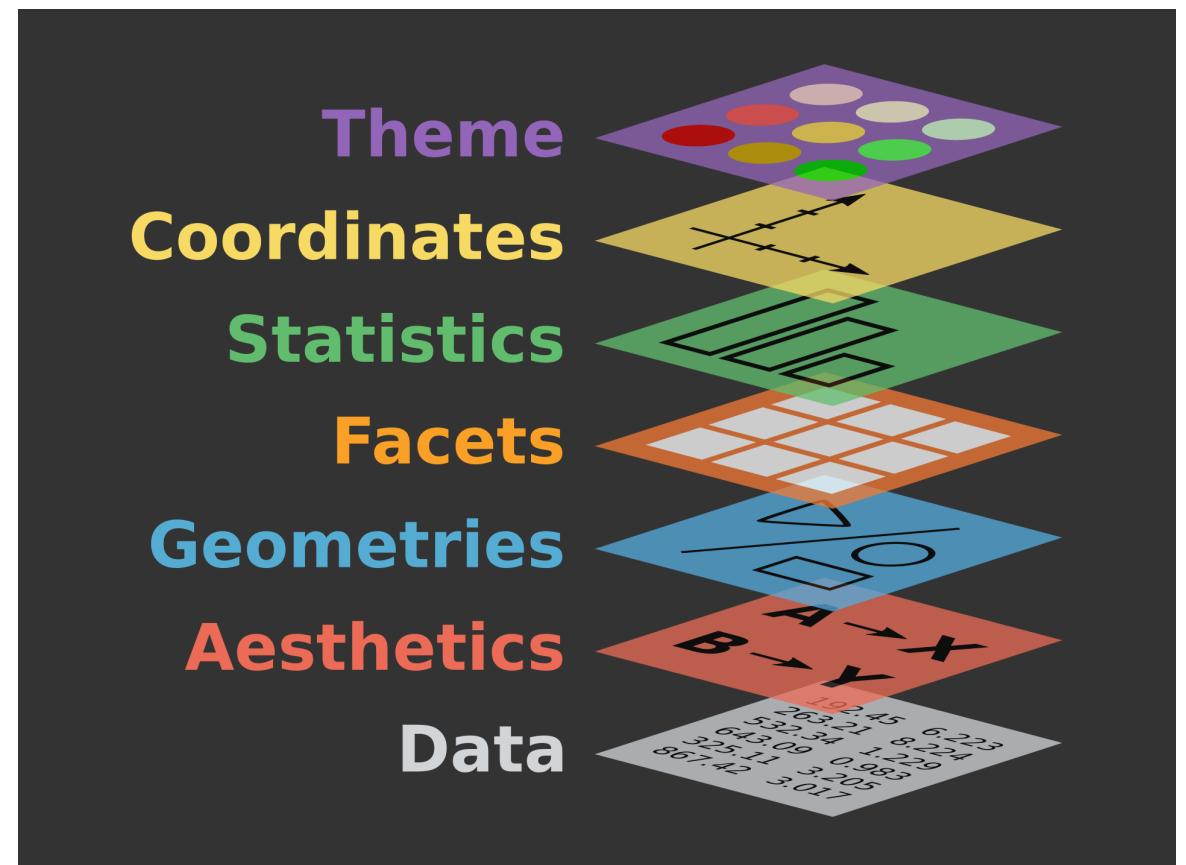
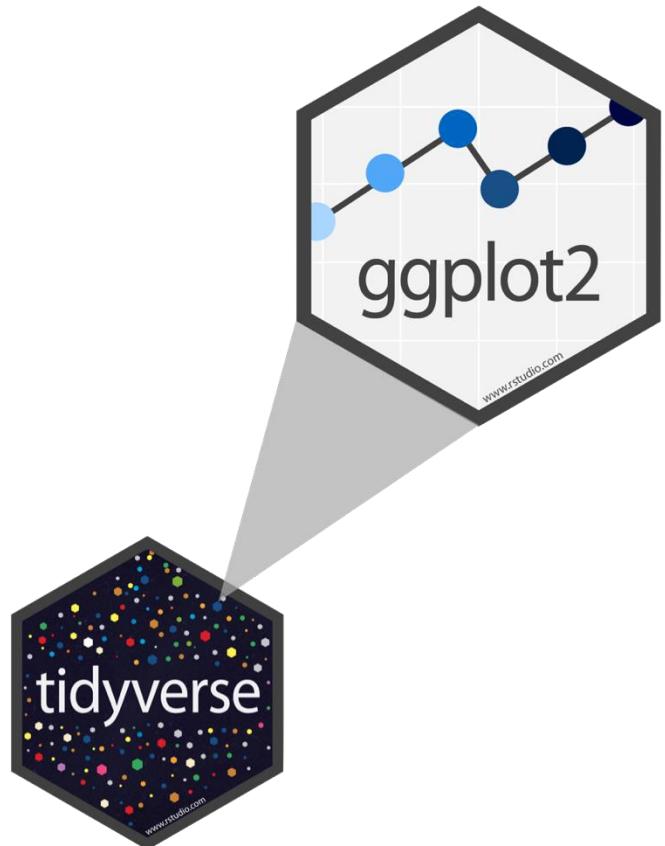


# Multiple graphs



# ggplot2

График как набор независимых слоев



# DATA VISUALIZATION WITH MESSY AND UNAGGREGATED DATA

**EXPECTATION**



**REALITY**

