

# Homework 1

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## Problem 1

- a) Qualitative, ordinal
- b) Qualitative, binary
- c) Qualitative, ordinal
- d) Quantitative, continuous
- e) Quantitative, discrete

## Problem 2

- a) Descriptive summaries of the depression scores for 14 individuals in a study

```
# data input
depression_score <- c(45, 39, 25, 47, 49, 5, 70, 99, 74, 37, 99, 35, 8, 59)
# calculate descriptive summaries
mean_score <- mean(depression_score)
median_score <- median(depression_score)
range_score <- max(depression_score) - min(depression_score)
sd_score <- sd(depression_score)
```

Mean: 49.36  
Median: 46  
Range: 94  
SD: 28.85

- b) Box plot of the depression scores of 14 individuals

```
library(ggplot2)
# create a box plot
ggplot() +
  geom_boxplot(aes(y = depression_score)) +
  scale_x_discrete() +
  labs(title = "The depression scores of 14 individuals",
       y = "The depression score") +
  coord_flip()
```

The depression scores of 14 individuals

