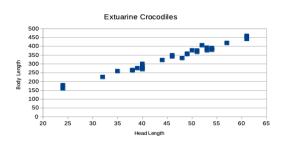


Week 11 - Correlation and Pivot Tables

### **Estuarine Crocodiles**

- Data on estuarine (saltwater crocodiles)
- Sample size: 28 crocodiles.
- Variables: head length and body length.

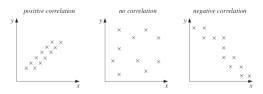
# Positive or negative co-movement?



#### Linear Correlation

- Specific case of association where the relationship between variables is linear.
- Pearson's correlation coefficient tells us how strong of a correlation there is between variables and in what direction (positive or negative).
- The correlation coefficient for a set of variables can range from -1 (perfectly negatively correlated) to 1 (perfectly positively correlated).

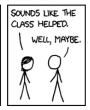
## Correlation



## Correlation vs Causation







## Pivot Tables

- Tool for summarizing larger data sets.
- Goal: reshaping and aggregating data to gain insights.