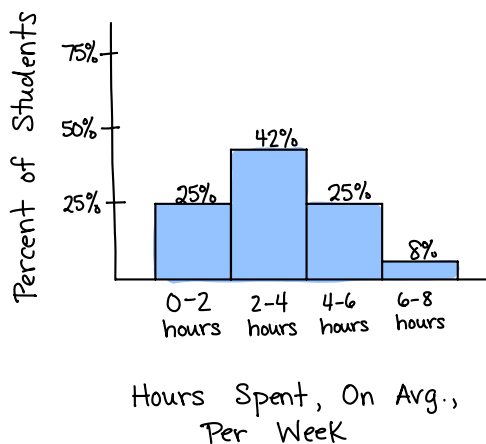
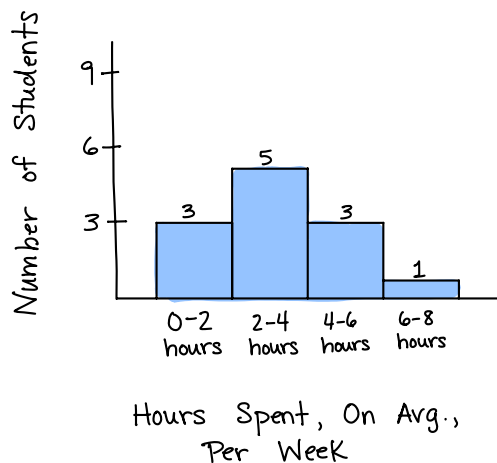


# Histograms

A histogram is a visual representation of data that shows how many (or what percent) of the data fit in certain categories or bins.

## Ex Ave. Time Spent Studying Outside of Class



## To make a histogram :

### - Categorical Data

- Calculate total number in each category ("\_\_\_\_\_")  
↳ \_\_\_\_\_ Table
- Calculate percent of whole in each category ("\_\_\_\_\_")  
↳ \_\_\_\_\_
- Put categories along horizontal axis & frequencies (or rel. freq.) as vertical bars.
- \_\_\_\_\_ axes & give \_\_\_\_\_ to histogram.

### - Numerical Data

- Sort data.
- Decide what "\_\_\_\_\_" to use
  - 5-20 bins usually (square root of # data pts)
  - bin width : try range of data vals. divided by # bins
- Then can categorize data into bins & proceed as above.

## Helpful Excel formulas & features

= SUM (...) ← for adding up numbers

Insert Chart

Chart Design, Add Chart Element, Axes Titles

Sort

Color code cells

= COUNT (...) ← for counting entries