

StatCrunch Lab 2 For Statistics 301

Topics: bar graph, Pareto chart, stem and leaf, histogram

Bar Graph and Pareto Chart. Create bar graph and Pareto chart from “patient health” data.

| category | frequency | relative frequency |
|----------|-----------|-----------------------|
| bad | 2 | $\frac{2}{20} = 0.10$ |
| poor | 4 | $\frac{4}{20} = 0.20$ |
| fair | 5 | $\frac{5}{20} = 0.25$ |
| good | 8 | $\frac{8}{20} = 0.40$ |
| great | 1 | $\frac{1}{20} = 0.05$ |
| total | 20 | 1.0 |

For bar graph on left, relabel var1 as Health, var2 as Frequency; type health types in Health column, type frequencies in Frequency column. Click on Graphics, Bar Plot, with summary, Categories: Health, Counts: Frequency, Next, Type: Relative Frequency, Order by: Worksheet, then Create Graph! For Pareto chart on right, same as bar graph, except Order by: Count Descending. Once done, click Data, Save data “2.1 Health Bar Graph”.

Stem and Leaf. Create two stem and leaf plots from “Body Temperature” data.

| | | | | |
|--------------------------------|---|--|--|--|
| body temperature before tablet | 4 8 8 5 0 9 3 2 0 0 9 9 8 7 7 6 1 1 0 5 | 97L 97H 98L 98H 99L 99H 100L 100H 101L 101H | 1 5 6 8 0 0 1 1 2 3 4 7 8 8 8 9 9 0 1 4 | body temperature after tablet stem: 1s leaf: 0.1s (after tablet) outlier: 96.2 |
|--------------------------------|---|--|--|--|

Relabel var1 as Before Temperature, var2 as After Temperature, type temperatures into two columns. Click on Graphics, Stem and Leaf, select both Before Temperature and After Temperature, then Create Graph! Two separate graphs are created, not one back-to-back plots. Once done, click Data, Save data “2.2 Body Temperature Stem and Leaf”.

Histogram. Create histogram from “patient age” data.

32, 37, 39, 40, 41, 41, 41, 42, 42, 43, 44, 45, 45, 45, 46, 47, 47, 49, 50, 51

Relabel var1 as Frequency, type 20 ages into Frequency column. Click on Graphics, Histogram, select Frequency, Next, Relative Frequency, Start bins at: 30, Binwidth: 5, then Create Graph! Once done, click Data, Save data “2.2 Age Histogram”.