STA 100 - Discussion 01

Book Problem

1. Consider the following frequency table for the number of kittens in a litter (Litter Size):

Litter Size	3	4	5	7
Frequency of Litter Size	10	15	20	7

   (a) Find the average litter size.

   (b) Find the standard deviation of litter size.

   (c) Find the median of litter size.

   (d) Find the 85^{th} percentile of litter size.

   (e) What proportion of litter sizes were more than one standard deviation from the average litter size?

R Problem

1. On Canvas, under Files, Discussions, Datasets, you will find the file `patients101.csv`. This file has the following columns:

   Column 1: `age`: The age of the patient.

   Column 2: `totalchol`: A measure of the patients total cholesterol - the higher the number, the more cholesterol. In units of mg/dL.

   Column 3: `sysBP`: The patients systolic blood pressure. In units of mm Hg.

   Column 4: `weight`: The patients weight in units of kg.

   Column 5: `height`: The patients height in units of cm.

   Column 6: `sedmins`: The patients number of sedentary minutes per week.

   Column 7: `obese`: The patients obesity category, with values `normal`, `overweight`, `obese`.

   Column 8: `marriage`: The patients marriage category, with values `other`, `married`, `divorced`, `widowed`, `nevermarried`.

   Column 9: `gender`: `M` or `F`, denoting Male or Female.

   (a) Find the average systolic blood pressure of all subjects.

   (b) Find the standard deviation of systolic blood pressure of all subjects.

   (c) Find the average of weight of all subjects.

   (d) Find the average of height of all subjects.

   (e) Find the average of weight by gender.

   (f) Find the standard deviation of height by gender.

   (g) Which marriage category has the most subjects?

   (h) Find the average weight for married and divorced subjects.