

## 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<sup>th</sup> percentile of 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.