

## 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

- Find the average litter size.
- Find the standard deviation of litter size.
- Find the median of litter size.
- Find the 85<sup>th</sup> percentile of litter size.
- What proportion of litter sizes were more than one standard deviation from the average litter size?

## R Problem

1. On Canvas, 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.

- Find the average systolic blood pressure of all subjects.
- Find the standard deviation of systolic blood pressure of all subjects.
- Find the average of weight of all subjects.
- Find the average of height of all subjects.
- Find the average of weight by gender.
- Find the standard deviation of height by gender.
- Which marriage category has the most subjects?
- Find the average weight for married and divorced subjects.