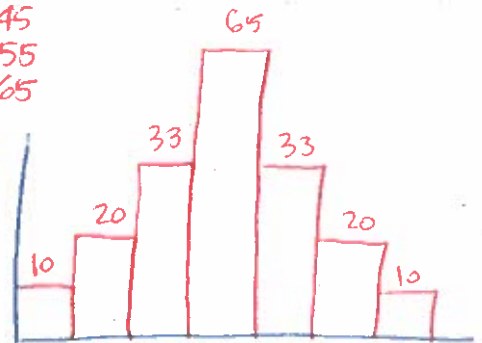


Section 3.9: Using frequency tables for statistical analysis of data (without the data set).

Ages of Family members at a family reunion

Age (in years)	Frequency	MID POINT
0-10	10	5
10-20	20	15
20-30	33	25
30-40	65	35
40-50	33	45
50-60	20	55
60-70	10	65
<u>191</u>		

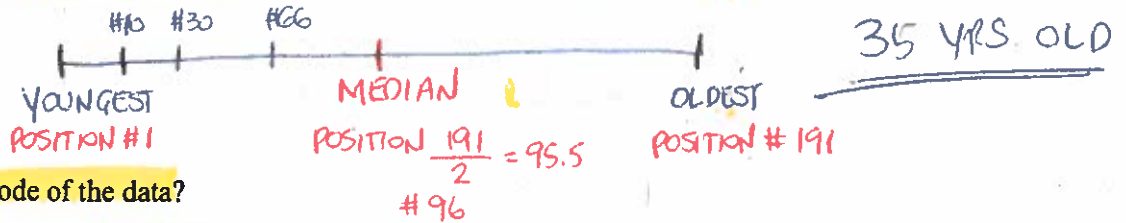


1. Based on the frequency table what would the histogram look like?

SYMMETRIC

2. What is the range of the data? : $\text{MAX} - \text{MIN}$
 $65 - 5 = 60 \text{ YEARS}$

3. What is the median of the data? MIDDLE PERSON IN AGE AT THE REUNION



4. What is the mode of the data?

35 YEARS OLD

5. What is the mean of data?

$$\text{AVERAGE } (\bar{x}) = \frac{(10 \cdot 5) + (20 \cdot 15) + (33 \cdot 25) + (65 \cdot 35) + (33 \cdot 45) + (20 \cdot 55) + (10 \cdot 65)}{191}$$

$$\bar{x} = \frac{6685}{191} = \underline{\underline{35 \text{ YEARS OLD}}}$$

Using the following table answer the following questions.

2. Find the mean, median, mode, and range given the frequency table below which represents the age of people at a family reunion.

Interval	Frequency	MIDPOINT
10-20	5	15
20-30	6	25
30-40	3	35
40-50	0	45
50-60	6	55
60-70	4	65
	24	

$$\text{MEAN } (\bar{x}) = \frac{5 \cdot (15) + 6(25) + 3(35) + 0(45) + 6(55) + 4(65)}{24} = \frac{920}{24} = 38.3 \text{ YRS. OLD}$$

MEDIAN (MIDDLE) :



$$\text{POSITION 12} \\ (5+6+3) = 35 \text{ YR. OLD INTERVAL}$$

$$\text{MODE (MOST): } \left. \begin{array}{l} 20-30 (6 \text{ PEOPLE}) = 25 \\ 50-60 (6 \text{ PEOPLE}) = 55 \end{array} \right\} 2 \text{ MODES: } 25, 55$$