

07/10/2019

Frequency distributions

Objective - Organize the quantitative data.

The Relative Frequency

Coin 10 times

Objective: Tails

$f = 6$ out of 10 tosses

$$\text{Rel freq} = \frac{6}{10}$$

Ex. 800 students ACT 20% made 17 or above.

How many students made 17 or above?

$$f = 0.2 \times 800 = 160 \text{ students.}$$

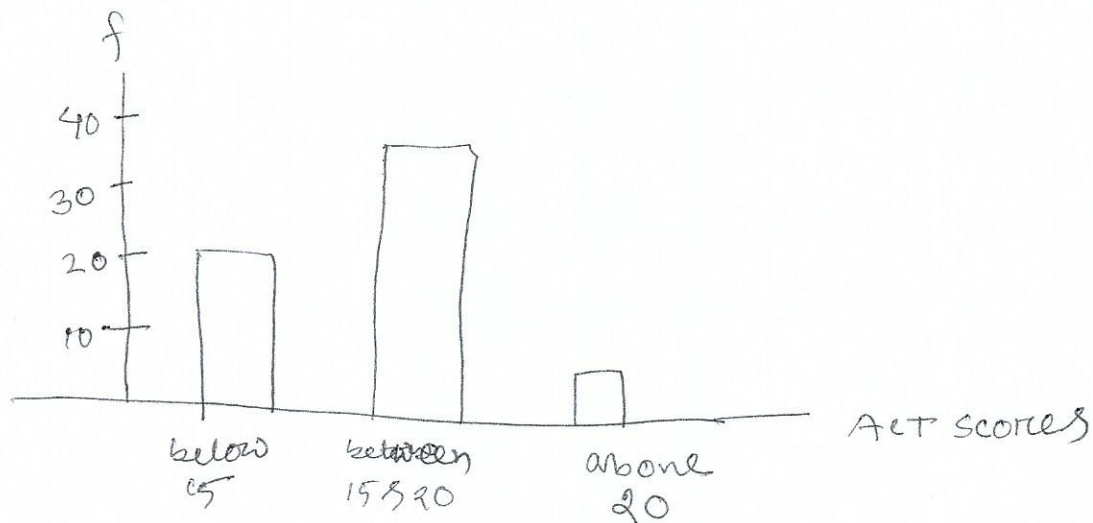
Population: $N = \text{total number} = \sum f$

Sample: $n = \text{total number} = \sum f$.

Category	Frequency	Rel Freq = $\frac{f}{\Sigma f}$	%
ACT scores below 15	20	$\frac{20}{62}$	32%
ACT scores between 15 & 20	35	$\frac{35}{62}$	
ACT scores above 20	7	$\frac{7}{62}$	
Total	62		

Bar graph

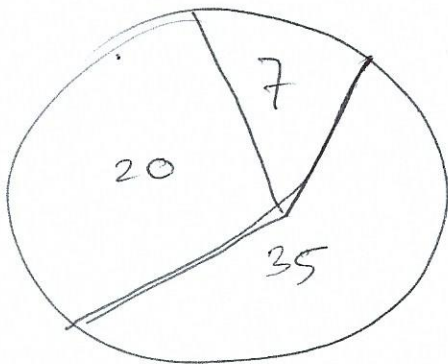
* Bars never touches.



Pareto chart



Pie chart



$$\Sigma f = 40$$

$$n = 40$$

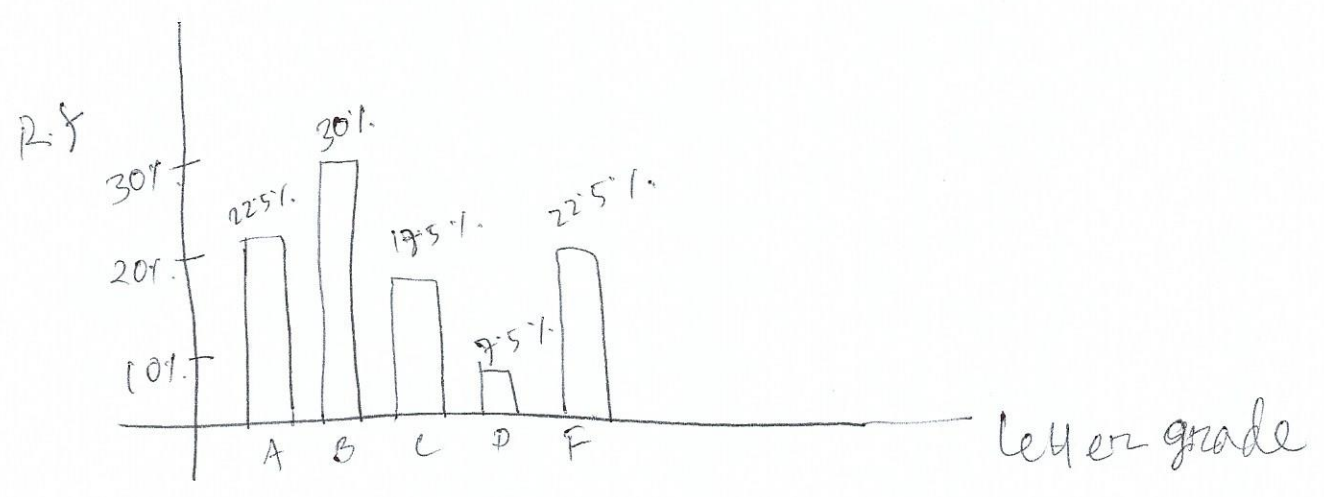
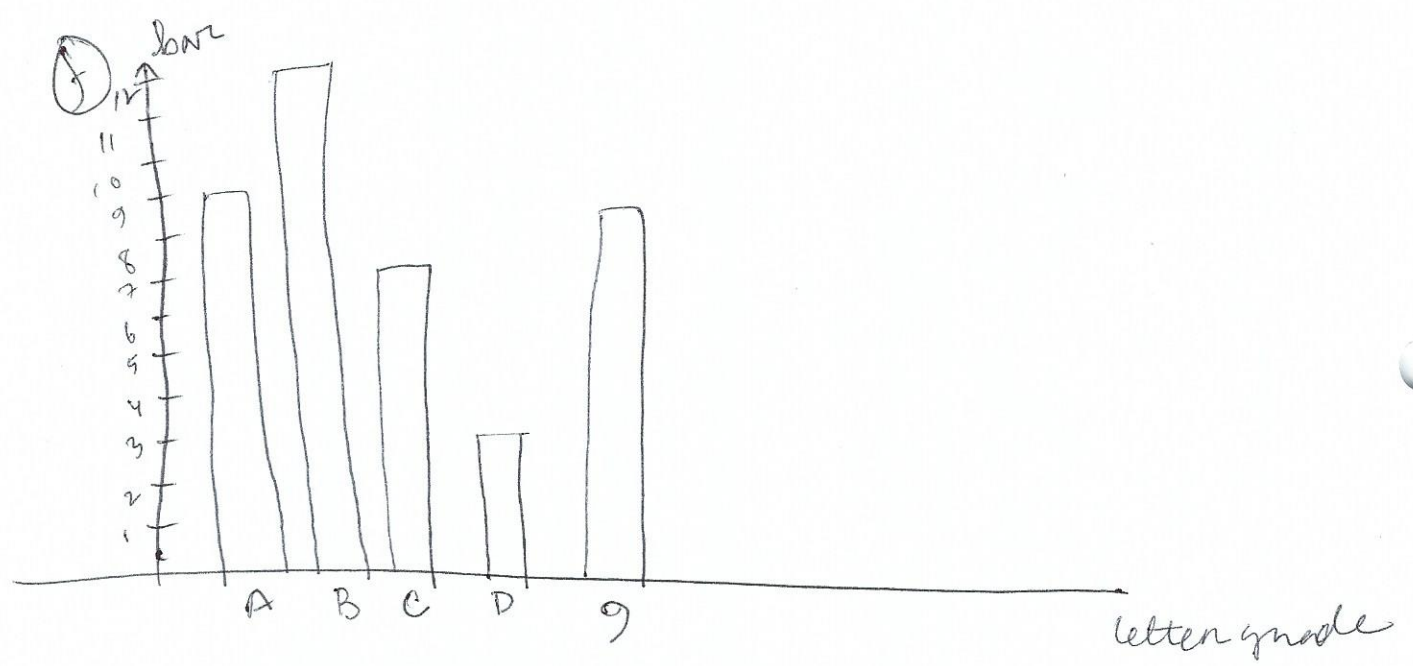
Category letter grade	$n = 40$ freq, f	$R \cdot f = \frac{f}{n}$	degree of a sector (Pie)
A	9	$9/40 = .225$	$.225 \times 360 = 81^\circ$
B	12	$12/40 = .3$	$.3 \times 360 = 108^\circ$
C	7	$7/40 = .175$	$.175 \times 360 = 63^\circ$
D	3	$3/40 = .075$	$.075 \times 360 = \text{27} 27^\circ$
F	9	$9/40 = .225$	$.225 \times 360 = 81^\circ$
	$\Sigma f = 40$		

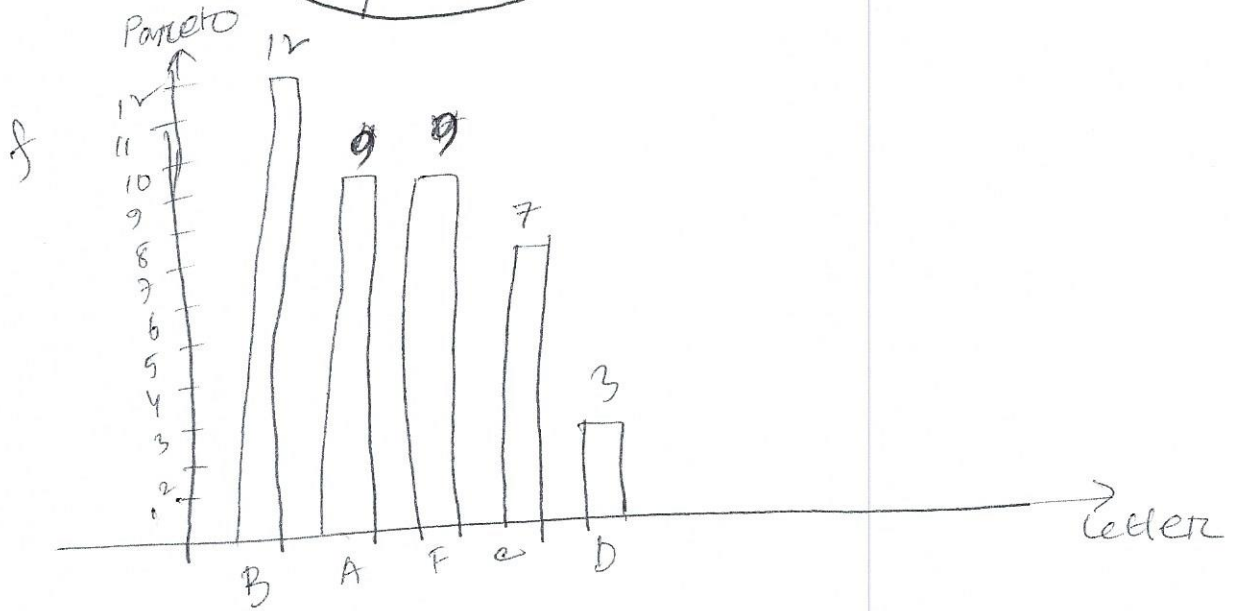
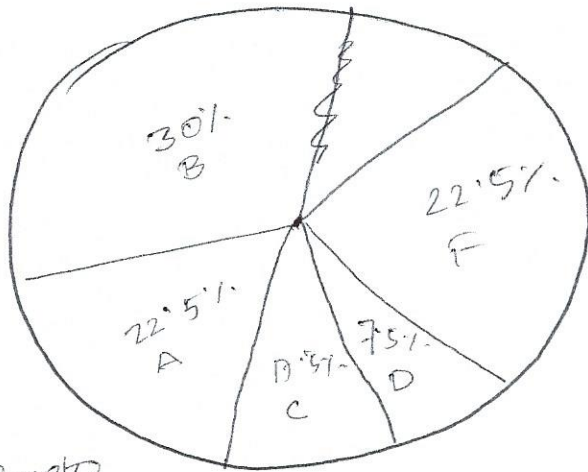
- ① Mode → Float Number selecting
- ② STAT

$$L(2) = 4/40$$

$$L(3) = L(2) \times 360$$

2nd stat → math → 5 sum





Histogram

Rectangle touches each other

of desks in each classroom

time to complete each problem

continuous data

