

2nd exercise:

1. The character under study is the "type of cellular phone used by a student of grade 9".

The nature is qualitative, since it can not be measured.
and it is a word

2. The size of data is given by: (total frequency)

$$N = \sum n_i = n_1 + n_2 + \dots + n_k.$$

$$25 = (x+1) + (4x+1) + (x+3) + (3x+2)$$

$$9x = 25 - 7$$

Thus, $x = 2$

no. of students uses \rightarrow Nokia = $x+1 = 3$.

\rightarrow iPhone = $4x+1 = 4(2)+1 = 9$.

\rightarrow Blackberry = $x+3 = 2+3 = 5$.

\rightarrow Samsung = $3x+2 = 3(2)+2 = 8$.

Thus, upon comparing the above values we conclude that the most phone type by 9th graders is iPhone.

3a.

Type of phone (x_i)	Nokia	iPhone	Blackberry	Samsung	Total
Frequency (n_i)	3	9	5	8	25
Central angle (α_i)	$\frac{3}{25} = \frac{25}{360}$ $\alpha_1 = 43.2$ ≈ 43	$\frac{9}{25} = \frac{25}{360}$ $\alpha_2 = 129.6$ ≈ 130	$\frac{5}{25} = \frac{25}{360}$ $\alpha_3 = 72$ 72	$\frac{8}{25} = \frac{25}{360}$ $\alpha_4 = 115.2$ ≈ 115	360°