

### 3<sup>rd</sup> - exercise:

1) The population under study is the <sup>rest</sup> 9<sup>th</sup> grade students

(2.5 pt)

The character is the number of supplementary exercises performed in Math per week.

It is quantitative, since it can be measured.

2) Number of students in class is equal to the maximum value of f.c.f.  
= 25 students (N = last ICF)

(1.5 pt)

3) x is the nu. of students that performed 4 <sup>Math supplementary</sup> exercises per week

(1.5 pt)

4) a)  $\sum n_i = N \quad \text{or} \quad (x_1 + x_2 + x_3 + \dots + x_5 = N)$

$25 = 15 + x + y$

Thus,  $x + y = 10$

(1.5 pt)

b)  $\bar{x} = \frac{\sum n_i x_i}{N} \quad \text{or} \quad (\bar{x} = \frac{x_1 n_1 + x_2 n_2 + \dots + x_5 n_5}{N})$

$\frac{5 + 2y + 21 + 4x + 18}{25} = 3.2$

$4x + 2y = 36$

$2x + y = 18$

$\begin{cases} x + y = 10 \\ 2x + y = 18 \end{cases} \quad (-1)$

$x = 8$

Sub. to get  $y = 2$

| value | 1                                | 2                               | 3                                | 4                                | 6                                |
|-------|----------------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|
| freq  | 5                                | 2                               | 7                                | 8                                | 3                                |
| % of  | $\frac{5}{25} \times 100 = 20\%$ | $\frac{2}{25} \times 100 = 8\%$ | $\frac{7}{25} \times 100 = 28\%$ | $\frac{8}{25} \times 100 = 32\%$ | $\frac{3}{25} \times 100 = 12\%$ |

88% of the students performed 4 extra Math exercises per week at Most.

(2.5 pt)