



**B-Test S5**

**Year: 2020-2021**

**Semester 2**

Surname , First Name :

Class : S5MA4ENa

Subject : Mathematics 4 periods

Name of Teacher: Mrs. Duminičă

Date : 2 June 2021

Time allowed (in hours / minutes) : 45 minutes

Authorised Materials : Geometric Equipment

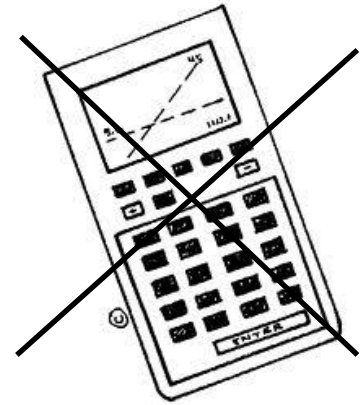
Instructions or remarks : **NO CALCULATOR.**

**Answer the questions in the blank boxes.**

**SHOW YOUR WORKING AND EXPLAIN YOUR ANSWERS FOR ALL QUESTIONS!**

**You will be able to insert additional sheets in the copy if you need more space. Please add name and question number to any sheet you add.**

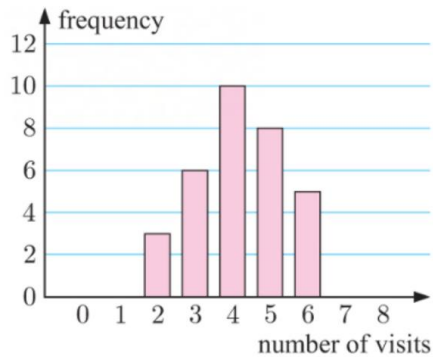
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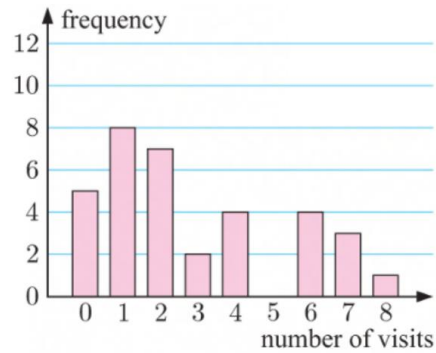


1. The S1 and S5 students in our school were asked how many times they visited their grandparents in the last month. The results are shown in the graphs below.

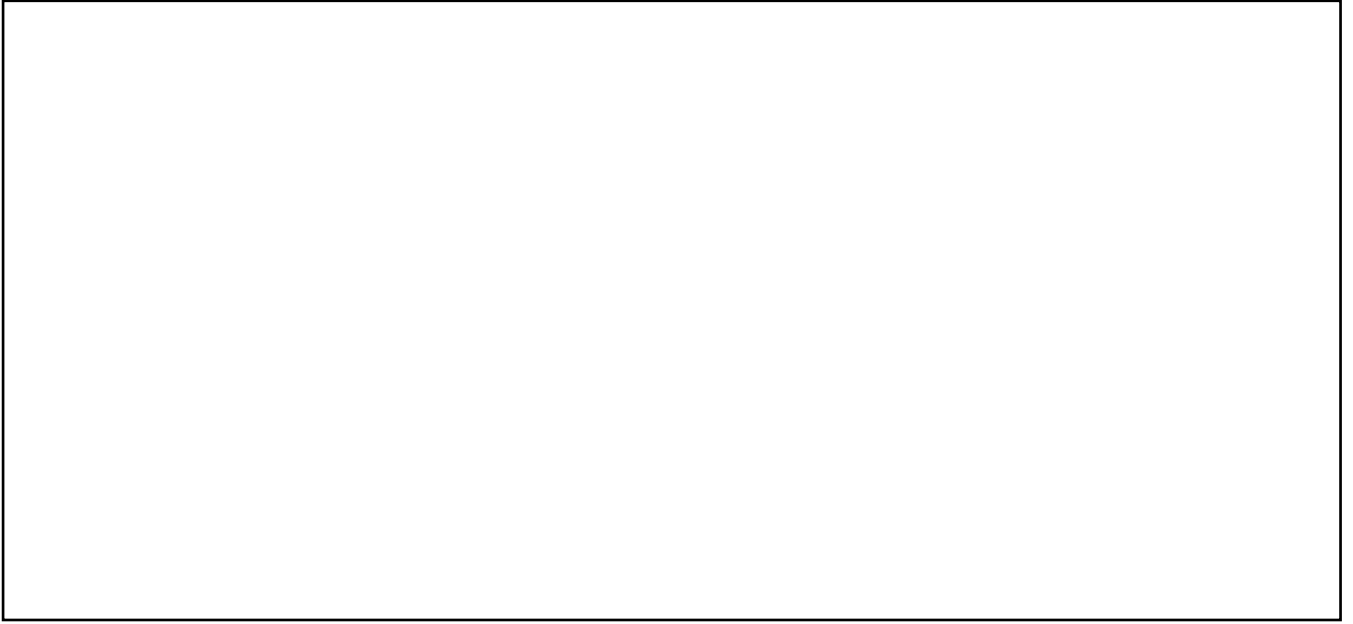
**S1 students**



**S5 students**



- a. For the S5 students, find the: (Show your working) (5 pts)
- Median
  - Range
  - interquartile range
- b. Comparing the two graphs, decide which class: (4 pts)
- generally visited their grandparents more often (Justify your answer)
  - had greater variation in their number of visits? (Justify your answer)



- 2. In a group of 60 students, 38 play neither football nor tennis, 15 play football, 5 play both football and tennis.
  - a. Display the information on a Venn diagram. (3 pts)
  - b. Find the number of students playing only tennis. (2 pts)
  - c. One student is chosen at random. Given that he/she is playing football, calculate the probability that this student plays tennis also. (3 pts)





3. Place on the unit circle the following angles and for each one of them give the sin and the cos: (8 points)

a.  $\frac{5\pi}{4}$

c.  $\frac{\pi}{3}$

b.  $\frac{11\pi}{6}$

d.  $\pi$



