

Exercise 1

Calc. : ✗

A group of 30 students went on a camping trip.

- Of these, 12 returned with both sunburns and insect bites and 20 reported sunburn. How many suffered only insect bites if it is known that three students suffered neither? Draw a **Venn-Diagram** to illustrate the situation.
- In the group, 9 students had food allergies. Of the 16 girls in the group 5 had food allergies. A student from the group is picked at random. What is the probability that they don't have food allergies given that they are a boy? Draw a **two-way table** to illustrate the situation.

5 marks

6 marks

Exercise 2

Calc. : ✗

A lock consists of three wheels with the digits 0 to 9.

- Knowing that each digit has only been used once, what is the maximum number of attempts that must be made before the lock will open?
- What is the probability that the lock will open on the first try?



4 marks

2 marks

Exercise 3

Calc. : ✗

Consider the data set described by the following frequency table :

- Calculate its Mode, Median, Range and Inter-Quartile range.
- Draw a Box-Plot that represents this data set.

Scores	Frequency
10	1
20	3
30	4
50	6
70	1

4 marks

4 marks

Exercise 4

Calc. : ✗

- A sequence has general formula $u_n = 15 + 3(n - 1)$
 - What type of sequence is it? (State u_1 and r or d).
 - Calculate its 21st term.
- A geometric sequence has the first term equal to 10 and the common ratio equal to -2 .
 - Write a recurrence formula to describe this sequence.
 - Calculate the terms u_2 , u_3 and u_4 .

5 marks

5 marks