C-What is the relation between mathematics and science?

Science is the mother of mathematics (they are interrelated)

D-Are the subdivisions of mathematics related to each other?

Yes, they are.

2- Say if the following statements are true or false: (1.5 pts)
A - Mathematics is a branch of science... *True*

B- Mathematical operations study only numbers...... *false*

C- Theory is part of mathematics.... *True*

3-Find in the text synonyms of the following words: (1.5 pts)
Studies=.. *learns* .   Rising=.. *increasing*

Addition=.. *collection*

4- Find in the text words that belong to the following: (3pts)

singular	plural	Both (sing and plur)
world	*series*	*mathematics*
study / science	*objects*	*analysis*

5- Re-order the following words to get a coherent sentence: (5 pts)
1-Study/ the/ between/ sides/ a/ shape/ and/ the/ space/ is/ geometrical/ of/ and/ relationship/ of/ the/ geometry/ angles/ the.

Geometry is the study of the relationship between space and the sides and the angles of a geometrical shape

2-Arithemitic/ is/ algebra/ the/ operations/ of/ numbers/ and.

Algebra is the arithemtic operations of numbers

6- Fill in the gaps with the following words: (5pts)
Space/ mathematics/ geometer/ volumes/ mathematician/ geometry/ areas/ numbers.

Geometry is a branch of *mathematics* concerned with questions of shape, size, relative position of figures, and the properties of *Space* Geometry arose in *numbers* of early cultures as a body of practical knowledge concerning length, *areas* and *Volumes*, with the use of formal mathematics as a science. Theories of **Thales, Archimedes** developed ingenious techniques for calculating *Volumes* and *areas*, especially mapping the position of stars and planets and describing the relationship between movements on the celestial body. A *mathematician* who works in the field of geometry is called a *geometer*

GOOD LUCK

Final English examination

Part one: Reading and Comprehension

The word " mathematics" comes from the Greek (mathéma), which means in ancient Greek learns, what one gets to know, also study or science, and in modern Greek just lesson.

The word "mathematics" in Greek came to have the narrower and more technical meaning "mathematical study". Its adjective is "mathématicos", meaning related to learning or studious. Before 1700, the term "mathematics" meant "astrology" rather than "mathematics".

The evolution of mathematics might be seen as an ever–increasing series of abstractions or alternatively an expansion of subject matter. The first abstraction was the one of numbers; the realization that the collection of two common elements, namely quantity of their numbers.

In addition of recognizing how to count objects, prehistoric peoples recognized also how to count abstract quantities, like: time-days, seasons, and years. Naturally followed by elementary arithmetic (addition, subtraction, multiplication and division).

Mathematics can be subdivided in the study of quantity, structure, space and change (e.i. arithmetic, algebra, geometry and analysis). In addition to these main concerns, there are also subdivisions dedicated to exploring links from the heart of mathematics to other fields: to logic, to set theory, to the empirical mathematics of various sciences (applied mathematics), and more recently to the rigorous study of uncertainty.

The study of quantity starts with numbers, and arithmetical operations on them. Here are the types of numbers that exist in mathematics: 1, 2, 3… (Natural numbers), -2, -1, 0, 1… (Integers), -2, 2/3, 1 (Rational numbers), -e2, 2 (real numbers), 2, I, -2+3i, 2e (complex numbers).

Many mathematical objects, such as sets of numbers and functions, exhibits internal structure as a consequence of operations or relations that are defined on the set. Mathematics then studies properties of those sets that can be expressed in term of that structure; for instance number theory studies properties of the set of integers that can be expressed in term of arithmetic operations.

Part two: Interpreting

1-Read the text and answer the following questions: (4 pts)
A-Give a brief definition of mathematics. *Mathematics has 2 different meanings 1st one: it means learning / studies. 2nd one: it means mathematical studies of numbers.*
B-What are the branches of mathematics? *There are 4 braches of mathematics : arithmetics, algebra, geometry and analysis.*