

II. PROBLEM SOLVING

I) Writing definitions

In science writing, the very first task you should do is to write definitions. Sometimes you are required to define a person, in other cases, you are asked to define an instrument, a noun, a technical term etc. To write a definition, you often use a relative clause to clarify the noun/pronoun defined.

Example:

1. A barometer is an instrument which is used to measure atmospheric pressure.
2. Science is the term which is used to denote systemized knowledge in any field.
3. A scientist is a person who studies science.

Writing task:

Combining each of the clauses in section A with a suitable one in section B to make a definition on each branch of science.

Section A

1. Archaeology	8. History
2. Architecture (computer science)	9. Information Science
3. Biology	10. Linguistics
4. Chemistry	11. Mathematics
5. Earth Science	12. Meteorology
6. Economics	13. Physics
7. Geography	14. Political Science
	15. Psychology

- is a branch of science which/that.....

Section B

a. studies the relationships among quantities, magnitudes, and properties and of logical operations by which unknown quantities, magnitudes, and properties may be deduced.

b. deals with the fundamental constituents of the universe, the forces they exert on one another, and the results produced by these forces.

c. studies of the composition, structure, properties, and interactions of matter.

d. functions as a means of encompassing the growing number of disciplines involved with the study of living forms.

e. deals with the distribution and arrangement of all elements of the earth's surface.

f. is the scientific study of language.

g. in its broadest sense, is the totality of all past events, although a more realistic definition would limit it to the known past.

h. deals with the generation, collection, organization, storage, retrieval, and dissemination of recorded knowledge.

i. is concerned with the production, distribution, exchange, and consumption of goods and services.

j. is concerned with the planet Earth or one or more of its parts.

k. refers to the study of the structure of all or part of a computer system.

l. is the scientific study of behavior and the mind.

m. is the scientific study of past human culture and behavior, from the origins of humans to the present.

n. is the systematic study of and reflection upon politics.

o. studies the earth's atmosphere and especially the weather.

II) Reading basic formulae

1. Complete the following table (look at the example) with verbs and nouns to describe mathematical processes.

Sign	Verb	Noun
+	Addition	add
-		
÷		
×		

2. Speak out loud the following formulae

$$a + b = c$$

$$a - b = c$$

$$a \times b = c$$

$$a \div b = c$$

3. Complete the following statements:

1. These signs () are called

2. These signs [] are called

3. These signs { } are called

4. This sign / is read

5. This sign = is read

6. This sign + is read

7. This sign - is read

8. x in R_x is read

9. x in R^x is read

10. x^2 is read

11. X^3 is read

12. X^n is read

13. X^{n-1} is read

14. X^{-n} is read

15. \sqrt{x} is read

16. $\frac{1}{2}$ is read

17. $\frac{1}{3}$ is read

18. $\frac{2}{3}$ is read

19. $\frac{1}{4}$ is read