

Subject: Mathematics

Topic: Fibonacci Sequence

Level: S.1

Learning objectives:

1. Content:

Students should be able to work out the Fibonacci Sequence.

2. Language:

Students should be able to read a paragraph to work out the Fibonacci Sequence and to write a short paragraph about the Fibonacci Sequence.

Form 1 Mathematics Fibonacci Sequence Worksheet 2

Name: _____ Class: _____ No.: _____ Date: _____



Group work

Instructions:

1. Work in a group of 4.
2. Read the following information.
3. Discuss and complete Tasks (a) to (e).
4. Then complete the paragraph at the end on your own.

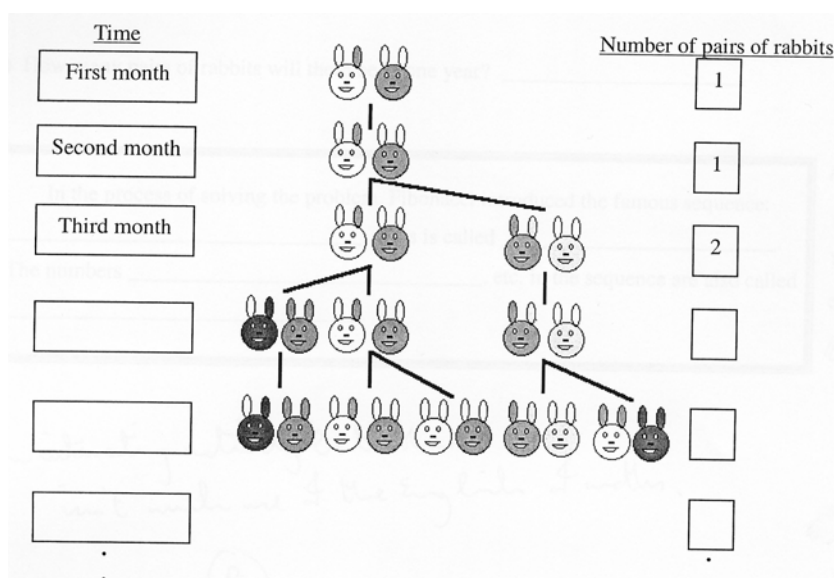
Fibonacci Rabbits

The original problem that Fibonacci (1170 -1250) investigated (in the year 1202) was about how fast rabbits could breed in ideal circumstances.

Suppose a newly-born pair of rabbits, one male, one female, are put in a field. Rabbits are able to mate at the age of one month and give birth one month later so that at the end of its second month a female can produce another pair of rabbits. Suppose that our rabbits *never die* and that the female *always* produces one new pair (one male, one female) every month from the second month onwards, the puzzle that Fibonacci posed was...

"How many pairs of rabbits will there be in one year?"

(a) Fill in the boxes in the figure below.



(b) From the above figure, the number of pairs of rabbits in the field at the start of each month forms a sequence which is _____

(c) Using the sequence obtained in (b), complete the following table.

Terms	Numbers	Patterns
First	1	
Second	1	
Third	2	
Twelfth		

(d) Describe the pattern of numbers in the sequence obtained in (c).

Starting from the _____ term, each term _____.

(e) How many pairs of rabbits will there be in one year? _____

Now, complete the following paragraph on your own:

In the process of solving the problem, Fibonacci introduced the famous sequence of _____ . This is called _____ . The numbers _____ etc. in the sequence are also called _____ .
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Now, compare your work with your group members. Change your work if you think you should.