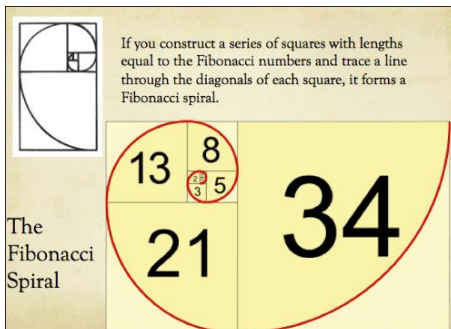


Goals



This week:

- Use recursion to generate an arithmetic sequence
- Display the terms of an arithmetic sequence in both tabular and graphical form and demonstrated that arithmetic sequences can be used to model linear growth and decay in discrete situations
- Deduce a rule for the n th term of a particular arithmetic sequence from the pattern of the terms in an arithmetic sequence, and use this rule to make predictions

Theoretical Components

Resources:

For this week the theory work is in the *PDF file*:
Week 5 Notes & Exercises

The following link provides additional information on sequences

<https://www.mathsisfun.com/algebra/sequences-series.html>

The fascinating world of Fibonacci numbers

<https://www.youtube.com/watch?v=iEnR8zupK0A>

Arithmetic sequence:

$$T_n = a(n - 1)d$$

Knowledge Checklist

- What is a sequence
- The three ways of defining a sequence
- Iterative
- Using a recursive formula
- Defining an arithmetic sequence
- General term
- Solving simultaneously

Practical Components

There are questions to be answered in the booklet
Week 5 Notes & Exercises

Investigation

On HawkerMaths and attached to this week's work

On-line Quiz

None