



Cheenta - Filix Math Olympiad Program

Starter Module

Day 4 - Homework problems

(Try these before coming to **next** class)

Problem 1

Search for the Last Supper (a painting by Da Vinci) in the internet. Read about the relationship of Golden ratio and that painting. Can you three more instances of connection of golden ratio with painting or architecture or nature?

Problem 2

In the sequence 0, 1, 1, 2, 3, 5... the rule for finding the **next term** is to add the two previous term. This method is the rule for generation of this sequence

Create two more sequence of numbers using some other rule of generation (be creative). Write first 10 terms of each of those two sequences. Check if there is some invariance.

Problem 3

The sequence discussed in the class was 'increasing' in nature: that is the **next term** is larger than the **previous term for every term in the sequence**. Build a sequence that is neither increasing nor decreasing.