Week 8&9
Term 1
2015

Learning Brief

MM1: Numbers, Patterns, Relations, Functions

Goals

Topic: Sequences and Series
By the end of this topic, you should be able to:

- understand and apply arithmetic and geometric sequences and series

This week:

- Geometric Progressions – applications and sum to infinity
- Arithmetic and Geometric Progressions – graphical representations

Theoretical Components

Week 8 Sequences and Series

http://www.mathsisfun.com/algebra/sequences-sums-geometric.html

http://www.examsolutions.net/maths-revision/core-maths/sequences-series/geometric/sum-to-infinity/tutorial-1.php

Further Maths Chapter 5
Read Section 5G then **DO** Ex 5G
Read Section 5H then **DO** Ex 5H
Read Section 5I then **DO** Ex 5I

Week 9 Review

At the end of each chapter of the Quest books there are review questions for Matrices and Sequences and Series:
Maths Quest 12 Further Maths Chapter 5 and 16
(Do not attempt 16F on Transition Matrices)
Maths Quest 11 Mathematical Methods Chapter 7

Review for Algebra and Surds
http://everythingmaths.co.za/grade-11/01-exponents-and-surds/01-exponents-and-surds-01.cnxmlplus

http://m.everythingmaths.co.za/grade-11/01-exponents-and-surds/01-exponents-and-surds-02.cnxmlplus

Practical Components

Week 8 Sequences and Series

Go to the Further Maths Chapter 5
(This chapter is on the Network T:drive as a pdf – we will go back to the e-book for the next topic Functions and Relations)

- ✓ **Exercise 5G**
- ✓ **Exercise 5H**
- ✓ **Exercise 5I**

Do a selection of the exercises until you are confedint of your cempotence ☺

Week 9 Review

- ✓ Chapter Reviews from Chapter 7 e-book and Chapters 5 and 16 from the T: resources.
- ✓ Do worded questions from Ex 16E
- ✓ Print "End of Chapter" tests from T: drive
- ✓ Review for Algebra and Surds (Harder)

http://m.everythingmaths.co.za/grade-11/01-exponents-and-surds/01-exponents-and-surds-03.cnxmlplus

http://m.everythingmaths.co.za/grade-11/01-exponents-and-surds/01-exponents-and-surds-04.cnxmlplus

http://m.everythingmaths.co.za/grade-11/01-exponents-and-surds/01-exponents-and-surds-06.cnxmlplus

QFO

Quiz/Forum/Other

There is a quiz this week 8.
https://drive.google.com/drive/ - folders/0ByICLsOP-HLlUG9vVHRMTEdhX00/0ByICLsOP-HLlUzlCY2pEZnp6VkU/0ByICLsOP-HLlfl9RcVFLLWE2Q2h5ZGRKTDlMeHhNWEFDbUR4MlU3LXBnTW1STHhtU09KamM
The quiz (mark) is instead of an Investigation for this week.

Investigation

Week 8

- No Investigation this week due to the quiz
- See you Monday in class then Learning commons…

Week 9

- ✓ Prepare a two-sided A4 hand-written summary sheet for the test in Week 9. This will be collected with the test.
- ✓ See you Wk9 in the allotted line for the week

Challenge Tasks

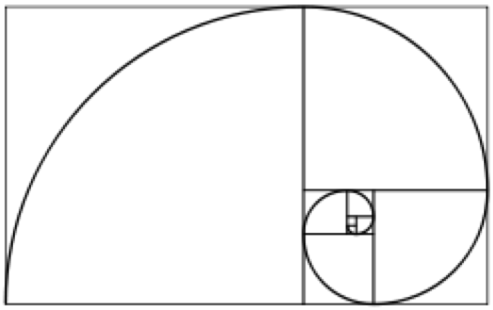
The Fibonacci and Lucas Sequences – Challenge Task from last week

This week revision - Some playing with surds…Solve for real roots:

1. $\sqrt{2x+1}+\sqrt{2x-1}=2$

2. $\sqrt{5x+1}-\sqrt{x}=2$

3. $\sqrt{3x+4}+\sqrt{3x-6}=10$

Hints: http://www.mathsisfun.com/algebra/radical-equations-solving.html

Solutions for Challenge Tasks available from Toby