Cheenta - Filix Math Olympiad Program

Starter Module

Day 5 - Forerunner problems

(Try these before coming to class)

Problem 1
Recall that an Euler Number of a polyhedron is **v - e + f** equals a constant 2 in the solids that we have experimented with (cube, tetrahedron etc.)

Find a solid whose Euler number is **not** 2. How is it different from the ones we experimented with?

Problem 2
Can you do the same with a 2-dimensional graph (vertices, edges) with regions? Here we found the Euler number to be 1 (**v - e + r).** Find a graph where this is not 1.

Problem 3
Find the ratios of consecutive terms in a Fibonacci sequence (term 2/ term 1), (term 3/term 2), etc..