

Mary Lou Kilmer

Task: Fibonacci's Problem:

Oregon CIM Standard:

Algebraic Relations: model situations, make predictions/inferences  
solve problems

Mathematical Problem Solving:

Apply and adapt appropriate strategies to solve problems

Core Math: Use mathematical strategies to solve problems.

Model situations mathematically in a variety of ways to solve problems.

Implement with Algebra 2, Precalculus, AP Calculus to review problem –solving strategies at beginning of the year.

**Task: Fibonacci's Problem**

This problem appears in Leonardo Fibonacci's book *Liber Abaci* published in 1202.

Identify the problem-strategy you are using. Document your thought process and show all of your work.

A man left to his oldest son one bezant and a seventh of what was left; then, from the remainder, to his next son he left two bezants and a seventh of what was left; then, from the remainder, to his third son he left three bezants and a seventh of what was left. He continued in this way, giving each son one bezant more than the previous son and a seventh of what remained. By this division, it developed that the last son received all that was left and all the sons shared equally. How many sons were there and how large was the man's estate?

Extension: Solve the problem using a different mathematical strategy.

