

# Group 6

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Introduction to Proof and Problem Solving

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**Problem 1.** For what values of  $n \in \mathbb{O}^+$  is

$$\sum_{j=0}^n 2^j$$

prime?

*Proof.* We will prove that this sum is only prime for positive odd integers

□

*Proof.* The proof is left as an exercise to the reader.

□

While working on this proof, I received no external assistance aside from advice from Professor Mehmetaj.