Math 252 Transition to Higher Mathematics

Lecture 1
Introduction

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Outline

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What does it take to solve

$$x^8 - 1 = 0$$

$$x^4 - 4x^3 + 6x^2 - 4x + 2 = 0$$

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- What does it take to show that every positive integer can be factored into primes?

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- What does it take to show that the sum of two even integers is an even integer?
- What does it take to show that every positive integer can be factored into primes?
- What does it take to show that if a set has n elements, then it has more than n subsets, but does not necessarily have more than 2n subsets?