

28 Lecture - CS402

Important Subjective

1. **What is a pseudo theorem?**

Answer: A pseudo theorem is a statement that appears to be a theorem, but is actually false.

Why are pseudo theorems dangerous?

Answer: Pseudo theorems can be misleading and can lead to incorrect conclusions if not identified and corrected.

How can we identify a pseudo theorem?

Answer: By carefully scrutinizing its assumptions and logical steps.

What is the difference between a true theorem and a pseudo theorem?

Answer: A true theorem is a statement that has been rigorously proven to be true, while a pseudo theorem is a statement that appears to be true but is actually false.

Give an example of a pseudo theorem related to mathematics.

Answer: All real numbers are rational.

What is the significance of pseudo theorems in mathematics?

Answer: Pseudo theorems can lead to wasted effort and can hinder progress in mathematics.

How can we avoid falling for pseudo theorems?

Answer: By developing critical thinking skills and by carefully scrutinizing any purported theorem before accepting it as true.

What is the difference between a paradox and a pseudo theorem?

Answer: A pseudo theorem is a false statement, while a paradox is a self-contradictory statement.

What is an example of a pseudo theorem related to physics?

Answer: The laws of physics are different in different parts of the universe.

Why is it important to correct pseudo theorems?

Answer: To prevent incorrect conclusions and to ensure that mathematical progress is based on solid, rigorous foundations.