

Theory of Computation

1. What is a decision problem?

It can be defined as a problem that only has a yes or no answer when a specified input is given.

2. What does it mean for a decision problem to be decidable?

When you can make a certain algorithm to answer the problem.

3. What is the class P? What is the class NP?

Class P can be defined as a problem that takes a polynomial time to solve, while class NP can be defined as problems that can be shown to be correct when there is a certain answer that has been given.

4. What is the intuitive meaning of the “P versus NP” question?

It can be defined as asking if a solution that can be authenticated quickly can also be determined quickly.

5. If you resolve the P versus NP question, how much richer will you be?

Imagine you get all the bitcoin in the world. You'll be that much richer.

https://www.newworldencyclopedia.org/entry/Decision_problem

<https://www.cantorsparadise.com/p-vs-np-what-is-the-difference-between-solving-a-problem-and-recognizing-its-solution-921c4c0df561>

<https://gizmodo.com/if-you-solve-this-math-problem-you-could-steal-all-the-1836047131>