

Christos Kapoutsis - Theory of Computation
Research Notes

1. What is a decision problem?

A decision problem is a computational problem that has binary outputs (yes/no) to a set of inputs.

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

A decision problem is decidable if there exists an algorithm that can always produce a decisive yes/no output to an input.

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

P is the set of problems that can be solved efficiently (in polynomial time) while NP is the set of problems whose solution can be verified efficiently.

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

It's asking whether all the problems that can be solved efficiently are also the same problems whose solutions can be verified efficiently.

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

One million dollars richer.

Sources

https://en.wikipedia.org/wiki/P_versus_NP_problem#:~:text=In%20this%20theory%2C%20the%20class,given%20the%20right%20information%2C%20or

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