SCIENTIFIC REASERCH

Thank you everyone for giving us this opportunity to express ourselves in front of this high quality university. We are going to talk about a topic in the field of mathematics and computer science concerning a big problem that goes under the name (P=NP).

First we are going to explain every part of this equations:

P: it stands for “easy to find” it represents The problems That can be resolved quickly. If we give an example Of Puzzle P would be an extremely easy one to put together. Like if it is made up of some pieces. All problems that belong to P are problems for which a polynomial Algorithm exists. That is at most case the number of communication steps in less than or equal to a polynomial a constant power of N .

NP means “easy to verify” it represents the problems that can be checked quickly if we return to the metaphor of the puzzle and P would be any puzzle because it is easy to find the inconsistencies in the assembly of it although their resolutions are simply verifiable they can be difficult to solve this will depend on the size of the problem(N equals the number of puzzle pieces) a problem belonging to the NP class has at least one algorithm which solves it(slowly) exponentially, but it's verification can be done using a polynomial equation(therefore quickly)

What will change if we find that P=NP?

So basically, every problem that seems impossible to solve will be solved, that is due for knowing that this problem has a solution that can be executed in a finite amount of times. So the artificial intelligence, cybersecurity, economics and bioinformatics, simply in all fields of our lives.

What will change if we find that P!=NP.

In this case at least we guarantee that our security system are efficient enough and that we can rely on it.

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