1125-68-997 **Bangyan Wen*** (ztong@otterbein.edu), 110 Marlene Dr., Westerville, OH 43081, and Yi Lin. The answer to the P/NP problem is $P \neq NP$ — proof via logical analysis.

Assertion 1: The answer to the P/NP problem is $P \neq NP$. The problems having no polynomial time DTM solutions are denoted -P. The first proof: Defining NP is to research -P, and NTM is not used as only DTM, NTM must be used for some problems in -P, thus, $P \neq NP$.

The second proof: Assume NP = P, then we have that the NTM NP algorithms are DTM P algorithms. However, the NP algorithms require parallel multi-valued and random guess which can finish in a glance, which does not exist in real life. Thus to avoid the confusions, we have $P \neq NP$.

Assertion 2: According to the current understanding with self-contradictory, neither NP = P nor P \neq NP is provable. 1) To show NP = P, we need to show for all problems X, $(X \in NP) \land (X \in P)$. It is known now that, thus the existence of P requires the evidence of the real existence of P1 (P=P1). However, all NP problems depending on NP algorithms do not have evidence of P1, which means the proof cannot be finished. 2) To show NP \neq P, we need to show there exists problem $x:(x \in NP) \land (x \in P)$. The evidence of the real nonexistence of P1 will be rejected, because it is known now that the nonexistence of P (denote -P) is not equivalent to the nonexistence of P : (-P \neq -P1), thus the proof cannot be done. (Received September 13, 2016)