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$$NP \subseteq P/\log \Leftrightarrow P = NP \quad (1)$$

$$NP \subseteq P/poly \Rightarrow \cup \sum_i^p = \sum_2^p \quad (2)$$

$$EXPTIME \subseteq P/poly \Rightarrow EXPTIME = \sum_2^p \Rightarrow P \neq NP \quad (3)$$

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(<sup>1</sup>) Obtained jointly with Ravindran Kannan.

(<sup>2</sup>) An improvement by Michael Sipser of an early result of ours.

(<sup>3</sup>) Due to Albert Meyer.

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