

2.1

$$T_1(N) = 1000N \rightarrow O(N)$$

$$T_2(N) = \frac{1}{5}N^2 + 10N + 7 \rightarrow O(N^2)$$

$$T_3(N) = 4N^2 + 3N\sqrt{N} \rightarrow O(N^2)$$

$$T_4(N) = N\sqrt{N} + \frac{1}{5}N \log N$$

$$\rightarrow O(N\sqrt{N})$$

$$T_5(N) = 2^N + N^{2019} \quad \text{ ~~$\rightarrow O(N)$~~ }$$

$$\rightarrow O(2^N)$$