

No.

Date. 作业七

1. 解:

$$(1) T_{\text{pipe}} = 2 + 0.1 = 2.1 \text{ ns}$$

$$(2) S = \frac{T_{\text{old}}}{T_{\text{new}}}$$

$$= \frac{7N}{2.1(N+5)}$$

$$= \frac{7N}{2.1(N+5)} \quad N \gg 4 \text{ 时} \quad S = \frac{10}{3}$$

$$(3) K \rightarrow \infty \text{ 时 } T_{\text{pipe}} \rightarrow 0.1 \text{ ns}$$

$$S = \frac{7N}{0.1(N+K)}$$

$$S = \text{当 } N \text{ 与 } K \text{ 同量级} \rightarrow \infty \text{ 时 } \frac{N}{N+K} \rightarrow \frac{1}{2}$$

$$S \rightarrow 3.5$$

$$\text{否则 } S \rightarrow 0$$

