

第七周.

1) 应取 1ns , 1.5ns , 1ns , 2ns , 1.5ns 的最大值 2ns , 再加 $0.1\text{ns} = 2.1\text{ns}$ 为 T_{clock} .

$$2) S = \frac{T_{\text{pipe}}}{T_{\text{old}}} \cdot \frac{\text{CPI}_{\text{pipe}}}{\text{CPI}_{\text{old}}} = \frac{2.1\text{ns}}{7\text{ns}} \times \frac{N+4}{N} \rightarrow 0.3$$

$$3) \text{ 将它无限级分割 } T_{\text{pipe}} = \frac{7}{n} + 0.1 \rightarrow 0.1\text{ns}, \therefore S_{\text{min}} = \frac{1}{70}.$$