第七周

1. 1) $T_{PIPE} = T_{MEM} + T_{REG} = 2.1\,ns$

2) $\dfrac{1}{S} = \dfrac{T_{PIPE}}{T_{cycle}} \times \dfrac{CPI_{PIPE}}{CPI_{cycle}} \approx \dfrac{T_{PIPE}}{T_{cycle}} = \dfrac{2.1\,ns}{7\,ns} = 30\% \Rightarrow S = 3.33$

3) $T_{PIPE} = 0.1\,ns$

$\dfrac{1}{S} \approx \dfrac{T_{PIPE}}{T_{cycle}} = \dfrac{0.1\,ns}{7\,ns} \Rightarrow S = 70$