TRCP

$T_{RAS} = T_{RP} + T_{RCP}$

$T_{RP} = R_{cd} \ln \frac{\frac{V_{DD}}{2}}{0,1\frac{V_{DD}}{2}} = 32,2 \times 10^{-12}\,\Omega$

$T_{RCP} = R_{cd} \ln \frac{V_f}{\frac{V_{DD}}{2} - 35\times10^{-3}}$ ⟶ $\begin{cases} V_c = 0 \rightarrow V_f = V_d = \frac{V_{DD}}{2} = 0,6V \\ V_c = V_{DD} \rightarrow V_f = V_{DD}\left(\frac{1}{2} + \frac{C_c}{C_d}\right) = 9,66V \end{cases}$

$\begin{cases} V_c = 0 \rightarrow T_{RCP} = R_{cd} \ln \frac{0,6}{0,6 - 35\times10^{-3}} = 0,184\times10^{-12}\,\Omega \\ V_c = V_{DD} \rightarrow T_{RCP} = R_{cd} \ln \frac{0,66}{0,6 + 35\times10^{-3}} = 0,55 \times 10^{-12}\,\Omega \end{cases}$

$T_{RAS} = T_{RP} + T_{RCP} \Rightarrow \begin{cases} T_{RAS} = 32,2\times10^{-12} + 0,184\times10^{-12} = 33,04\times10^{-12} \\ T_{RAS} = 32,2\times10^{-12} + 0,55\times10^{-12} = 32,75\times10^{-12} \end{cases}$

$\Rightarrow T_{RAS} = 33,04\ ps$