worksheet 6.2 page 1 see figure 6.2.1

$Ro := 100\ \Omega$ $Rg := 10\ \Omega$ $RL := 1000\ \Omega$

$Vgen := 10\ V$ $T := 100 \cdot 10^{-9}\ s$

$N1 := 100$ $dt := \frac{T}{N1}$ $N2 := 30 \cdot N1$

$$send(INPUT, Vgen) := \left| \begin{array}{l} Ini \leftarrow INPUT_2 \\ Ina \leftarrow \frac{2 \cdot Ro \cdot Ini + Vgen}{Rg + Ro} \\ Inr \leftarrow Ina - Ini \\ \begin{pmatrix} Ina \\ Inr \end{pmatrix} \end{array} \right.$$

$$recv(INPUT) := \left| \begin{array}{l} Ifi \leftarrow INPUT_1 \\ Ifa \leftarrow \frac{2 \cdot Ro \cdot Ifi}{RL + Ro} \\ Ifr \leftarrow Ifa - Ifi \\ \begin{pmatrix} Ifa \\ Ifr \end{pmatrix} \end{array} \right.$$

$$point(n) := \left| \begin{array}{l} m \leftarrow mod(n, N1) \\ m \leftarrow N1 \quad if \quad m = 0 \end{array} \right.$$

$$Ina := \left| \begin{array}{l} data_{2,N1} \leftarrow 0 \\ \text{for } i \in 1 .. N2 \\ \quad \left| \begin{array}{l} p \leftarrow point(i) \\ INPUT \leftarrow data^{\langle p \rangle} \\ \begin{pmatrix} Ina \\ Inr \end{pmatrix} \leftarrow send(INPUT, Vgen) \\ \begin{pmatrix} Ifa \\ Ifr \end{pmatrix} \leftarrow recv(INPUT) \\ OUTPUT \leftarrow \begin{pmatrix} Inr \\ Ifr \end{pmatrix} \\ data^{\langle p \rangle} \leftarrow OUTPUT \\ I_i \leftarrow Ina \end{array} \right. \\ I \end{array} \right.$$

$n := 1 .. N2$ $t_n := (n - 1) \cdot dt$

Figure 6.2.5 Calculating the waveform of the current at the near end of the line

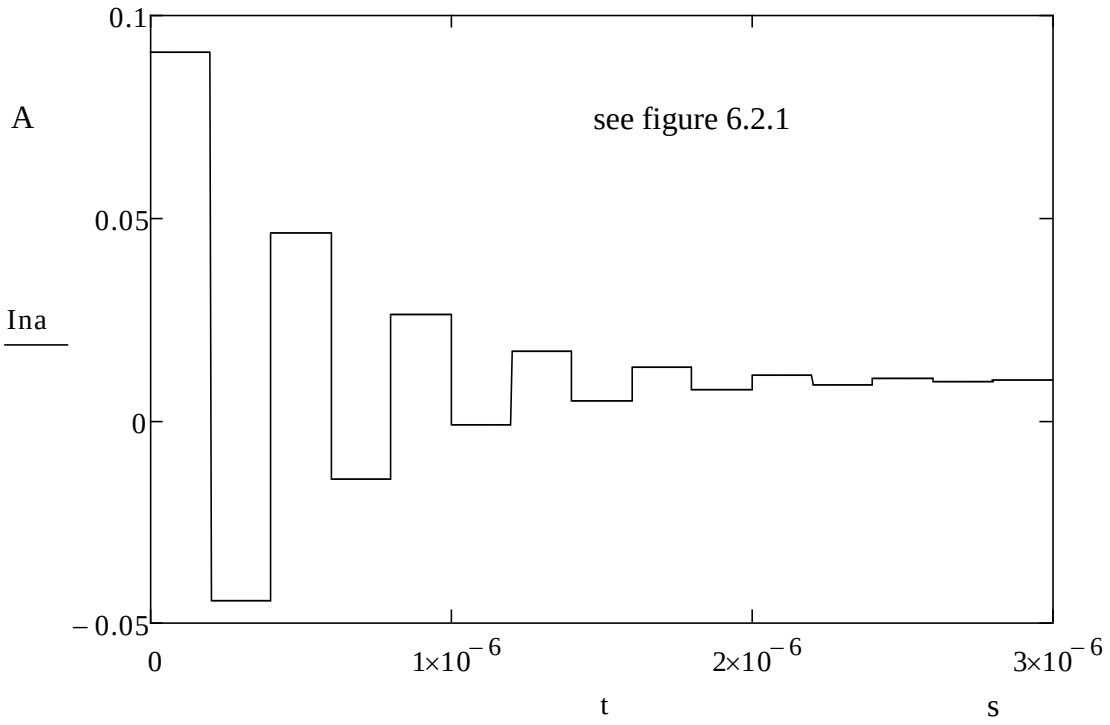

Figure 6.2.6 Waveform of the current delivered to input of transmission line