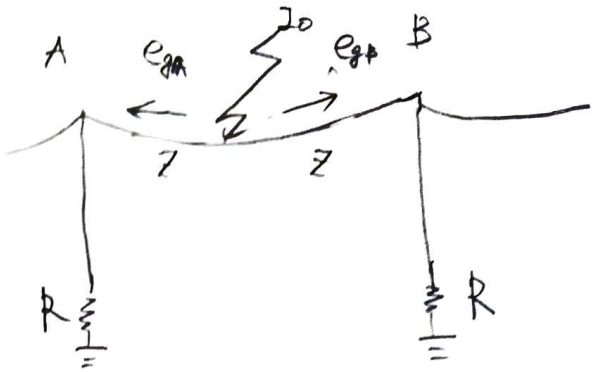
[S61.送1]

$e_{gA} = e_{gB} = e_g = \frac{I_0}{2} Z$

鉄塔Aの電位上昇を e_{gA} とする

$e_{gA} + e_{gr} = e_{gt} = i_R R$ — ①

$i_{gA} - i_{gr} = i_{gt} + i_R$ — ②

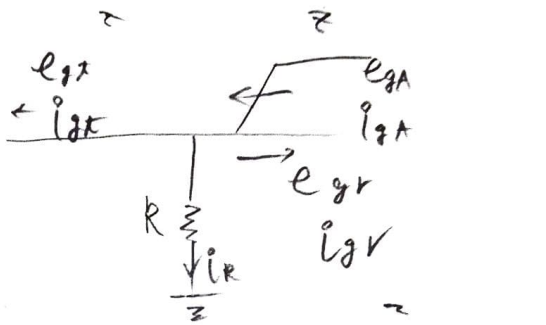


$\therefore$

$i_{gt} = \frac{e_{gA}}{Z}$

$i_{gr} = \frac{e_{gr}}{Z}$

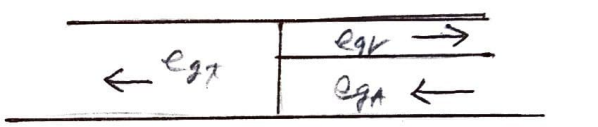
$i_{gt} = \frac{e_{gt}}{Z}$



②より

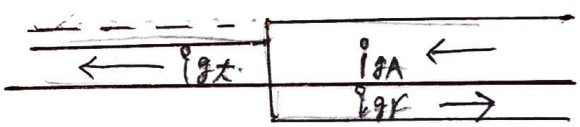
$\frac{e_{gA}}{Z} - \frac{e_{gr}}{Z} = \frac{e_{gt}}{Z} + \frac{e_{gt}}{R}$

$R(e_{gA} - e_{gr}) = (R+Z)e_{gt}$ — ③



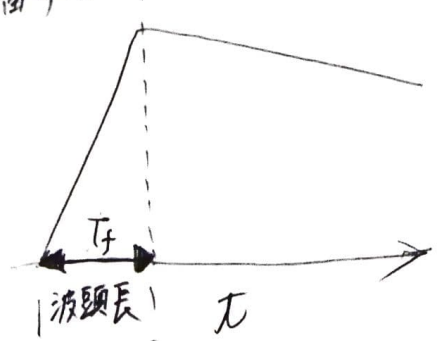
①を③に代入

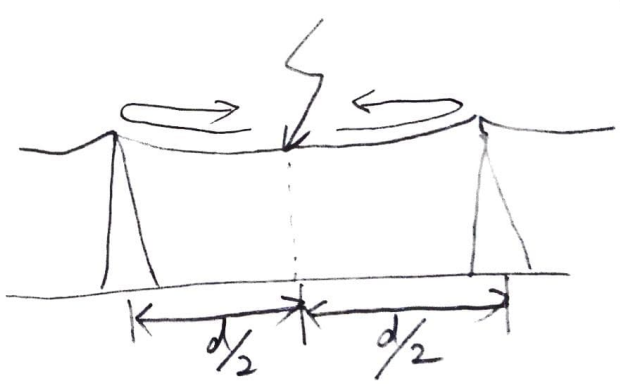
$2e_{gA} = \frac{R+Z}{R} e_{gt} + e_{gt}$ $\quad \frac{2R+Z}{R}$



$e_{gA} = \frac{2R+Z}{2R} e_{gt}$ $\quad \therefore e_{gt} = \frac{2R}{2R+Z} e_{gA} = \frac{2R}{2R+Z} \cdot \frac{I_0}{2} Z = \frac{RZ}{2R+Z} I_0$ //

雷撃電流 I_0





鉄塔電位のイメージ $\quad \frac{d}{c} > T_f$