

$$z = \frac{Z}{Z_0}$$

$$\hat{\mathbf{a}}_A = \frac{\mathbf{A}}{|\mathbf{A}|}$$

$$y = \frac{1}{z} = Y Z_0$$

$$\mathbf{A} \cdot \mathbf{B} = |\mathbf{A}| |\mathbf{B}| \cos \theta_{AB}$$

$$T = l/u \quad [\text{s}]$$

$$\mathbf{A} \cdot \mathbf{B} = A_x B_x + A_y B_y + A_z B_z \text{ (for example)}$$

$$\Gamma_G = \frac{Z_g - Z_0}{Z_g + Z_0}$$

$$\mathbf{A} \times \mathbf{B} = |\mathbf{A}| |\mathbf{B}| \sin \theta_{AB} \hat{\mathbf{a}}_n$$

$$V_1^+ = \frac{Z_0}{Z_g + Z_0} V_g \quad [\text{V}]$$

$$A_B = \mathbf{A} \cdot \hat{\mathbf{a}}_B = \frac{\mathbf{A} \cdot \mathbf{B}}{|\mathbf{B}|}$$

$$V_\infty = \frac{Z_L}{Z_g + Z_L} V_g \quad [\text{V}]$$

$$\mathbf{A}_B = A_B \hat{\mathbf{a}}_B$$

$$V_1^- = \Gamma_L V_1^+ \quad [\text{V}]$$

$$\sin^2 \theta + \cos^2 \theta = 1$$

$$V_2^+ = \Gamma_G \Gamma_L V_1^+ \quad [\text{V}]$$

$$\nabla \times (\nabla V) = 0$$

$$V_2^- = \Gamma_L \Gamma_G \Gamma_L V_1^+ \quad [\text{V}] \text{ (and so on)}$$

$$\nabla \cdot (\nabla \times \mathbf{A}) = 0$$

$$\oint_S \mathbf{A} \cdot \mathbf{dS} = \int_v (\nabla \cdot \mathbf{A}) dv$$

$$|\mathbf{A}| = A = \sqrt{A_x^2 + A_y^2 + A_z^2} \text{ (for example)}$$

$$\oint_L \mathbf{A} \cdot \mathbf{dl} = \int_S (\nabla \times \mathbf{A}) \cdot \mathbf{dS}$$