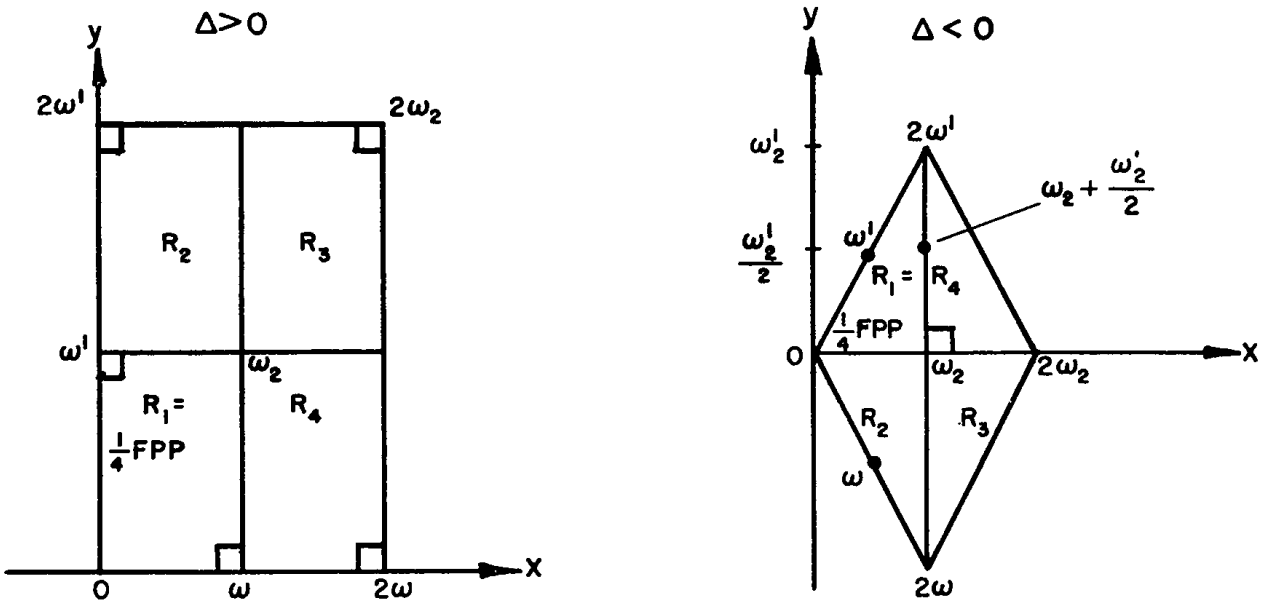
FPP's, Symbols for Periods, etc.



RECTANGLE FIGURE 18.1 RHOMBUS

$\omega_1=\omega$

$\omega_2=\omega+\omega'$ $\omega_2'=\omega'-\omega$

$\omega_3=\omega'$

ω REAL	ω_2 REAL
ω' PURE IMAG.	ω_2' PURE IMAG.
$\lvert\omega'\rvert \geqq \omega$, since $g_3 \geqq 0$	$\lvert\omega_2'\rvert \geqq \omega_2$, since $g_3 \geqq 0$

Fundamental Rectangles

Study of all four functions ($\wp, \wp', \zeta, \sigma$) can be reduced to consideration of their values in a Fundamental Rectangle including the origin (see **18.2** on homogeneity relations, reduction formulas and processes).

$\Delta>0$

Fundamental Rectangle is $\frac{1}{4}$ FPP, which has vertices $0, \omega, \omega_2$ and ω'

$\Delta<0$

Fundamental Rectangle has vertices $0, \omega_2, \omega_2+\frac{\omega_2'}{2}, \frac{\omega_2'}{2}$.

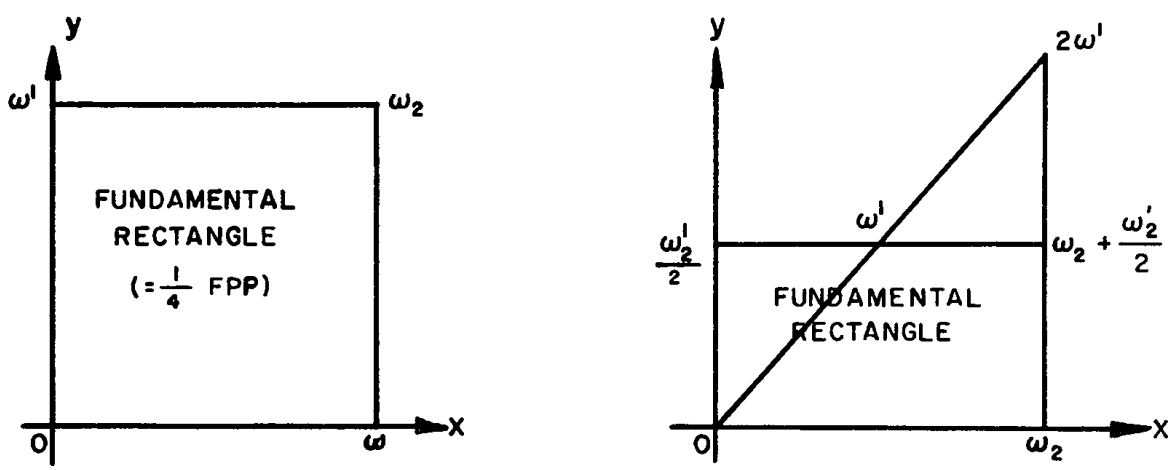


FIGURE 18.2

There is a point on the right boundary of Fundamental Rectangle where $\wp=0$. Denote it by z_0.