Reduction for z_2 in Δ_2: $z_1=\epsilon\bar{z}_2$ is in Δ_1.

18.13.1 $\wp(z_2)=\epsilon^{-2}\overline{\wp}(z_1)$

18.13.2 $\wp'(z_2)=-\overline{\wp}'(z_1)$

18.13.3 $\zeta(z_2)=\epsilon^{-1}\bar{\zeta}(z_1)$

18.13.4 $\sigma(z_2)=\epsilon\bar{\sigma}(z_1)$

Reduction for z_3 in Δ_3: $z_1=\epsilon^{-1}(2\omega'-z_3)$ is in Δ_1

18.13.5 $\wp(z_3)=\epsilon^{-2}\wp(z_1)$

18.13.6 $\wp'(z_3)=\wp'(z_1)$

18.13.7 $\zeta(z_3)=-\epsilon^{-1}\zeta(z_1)+2\eta', \qquad \eta'=\zeta(\omega')$

18.13.8 $\sigma(z_3)=\epsilon\sigma(z_1)\exp[(z_3-\omega')(2\eta')]$

Special Values and Formulas

18.13.9

$\Delta=-27, \qquad H_1=\sqrt{3}(4^{-1/3})\bar{\epsilon},$

$H_2=\sqrt{3}(4^{-1/3}), \qquad H_3=\sqrt{3}(4^{-1/3})\epsilon$

18.13.10 $m=\sin^2 15°=\frac{2-\sqrt{3}}{4}, \qquad q=ie^{-\pi\sqrt{3}/2}$

18.13.11 $\vartheta_2(0)=Ae^{i\pi/8}$

18.13.12 $\vartheta_3(0)=Ae^{i\pi/24}$

18.13.13 $\vartheta_4(0)=Ae^{-i\pi/24}$

18.13.14

where $A=(\omega_2/\pi)^{1/2}2^{1/3}3^{1/8}\approx 1.0086\ 67$

18.13.15 $\omega_2=\frac{K(m)2^{1/3}}{3^{1/4}}=\frac{\Gamma^3(1/3)}{4\pi}$

Values at Half-periods

	$\wp$	$\wp'$	ζ	σ
18.13.16 $\omega\equiv\omega_1$	$e_1=4^{-1/3}\epsilon^2$	0	$\eta=\epsilon\pi/2\omega_2\sqrt{3}$	$\epsilon^{-1}\sigma(\omega_2)$
18.13.17 ω_2	$e_2=4^{-1/3}$	0	$\eta_2=\eta+\eta'=\pi/2\omega_2\sqrt{3}$	$\frac{e^{\pi/4\sqrt{3}}(2^{1/3})}{3^{\frac{1}{4}}}$
18.13.18 $\omega'\equiv\omega_3$	$e_3=4^{-1/3}\epsilon^{-2}$	0	$\eta'=\epsilon^{-1}\pi/2\omega_2\sqrt{3}$	$\epsilon\sigma(w_2)$
18.13.19 ω_2'	$e_2=4^{-1/3}$	0	$\eta_2'=-\pi i/2\omega_2=\eta'-\eta$	$\frac{ie^{3\pi/4\sqrt{3}}(2^{1/3})}{3^{\frac{1}{4}}}$

Values [7] along $(0, \omega_2)$

	$\wp$	$\wp'$	ζ	σ
18.13.20 $2\omega_2/9$	$\frac{\sqrt[3]{\cos 80°}}{\sqrt[3]{\cos 20°}-\sqrt[3]{\cos 40°}}$	$\frac{-\sqrt{3}[\sqrt[3]{\cos 20°}+\sqrt[3]{\cos 40°}]}{\sqrt[3]{\cos 20°}-\sqrt[3]{\cos 40°}}$		
18.13.21 $\omega_2/3$	$1/(2^{1/3}-1)$	$-\sqrt{3}(2^{1/3}+1)/(2^{1/3}-1)$	$\frac{\eta_2}{3}+\frac{\sqrt{3}(2^{2/3}+2+2^{4/3})}{6}$	$\frac{e^{\pi/36\sqrt{3}}}{3^{1/6}}\sqrt[4]{\frac{2^{1/3}-1}{2^{1/3}+1}}$
18.13.22 $4\omega_2/9$	$\frac{\sqrt[3]{\cos 40°}}{\sqrt[3]{\cos 20°}-\sqrt[3]{\cos 80°}}$	$\frac{-\sqrt{3}[\sqrt[3]{\cos 20°}+\sqrt[3]{\cos 80°}]}{\sqrt[3]{\cos 20°}-\sqrt[3]{\cos 80°}}$		
18.13.23 $\omega_2/2$	e_2+H_2	$-3^{3/4}\sqrt{2+\sqrt{3}}$	$(\pi/4\omega_2\sqrt{3})+(3^{1/4}\sqrt{2+\sqrt{3}}/2^{4/3})$	$\frac{e^{\pi/16\sqrt{3}}(2^{1/12})}{3^{1/4}\sqrt[8]{2+\sqrt{3}}}$
18.13.24 $2\omega_2/3$	1	$-\sqrt{3}$	$\frac{2}{3}(\eta_2)+3^{-1/2}$	$e^{\pi/9\sqrt{3}}/3^{1/6}$
18.13.25 $8\omega_2/9$	$\frac{\sqrt[3]{\cos 20°}}{\sqrt[3]{\cos 40°}+\sqrt[3]{\cos 80°}}$	$\frac{-\sqrt{3}[\sqrt[3]{\cos 40°}-\sqrt[3]{\cos 80°}]}{\sqrt[3]{\cos 40°}+\sqrt[3]{\cos 80°}}$		

[7] Values at $2\omega_2/9$, $4\omega_2/9$ and $8\omega_2/9$ from [18.14].