【1d4b1】 $t_0=\dfrac{\sqrt{\alpha'}}{-\alpha\mathrm{E}}+\dfrac{\beta}{-\alpha\sqrt{-\alpha}}cos^{-1}\left(\dfrac{-\alpha\beta'/\mathrm{A}}{\sqrt{\beta^2-\alpha c}}\right)$ and $\theta_0(0)=0$

【1d4b2】 $\exists z\in\mathbb{R}$； $z=r(t)-\mathrm{Q}\,\boldsymbol{m}(2,1)/\mathrm{E}$ and

$$t=2nt_0+\frac{1}{\alpha}\sqrt{\alpha z^2+2\beta z+c}+\frac{\beta}{\alpha\sqrt{-\alpha}}cos^{-1}\left(\frac{-\alpha z-\beta}{\sqrt{\beta^2-\alpha c}}\right)$$

and $\theta(t)=\theta_0(n)-\dfrac{h}{\sqrt{\alpha'}}cosh^{-1}\left(\dfrac{\alpha'/r(t)+\beta'}{\sqrt{\beta'^2-\alpha'\mathrm{A}}}\right)$

【1d4b3】 $\exists z\in\mathbb{R}$； $z=r(t)-\mathrm{Q}\,\boldsymbol{m}(2,1)/\mathrm{E}$ and

$$t=2nt_0-\frac{1}{\alpha}\sqrt{\alpha z^2+2\beta z+c}-\frac{\beta}{\alpha\sqrt{-\alpha}}cos^{-1}\left(\frac{-\alpha z-\beta}{\sqrt{\beta^2-\alpha c}}\right)$$

and $\theta(t)=\theta_0(n)+\dfrac{h}{\sqrt{\alpha'}}cosh^{-1}\left(\dfrac{\alpha'/r(t)+\beta'}{\sqrt{\beta'^2-\alpha'\mathrm{A}}}\right)$

【1d5】とは【1d5a】and【1d5b】のことだ。

【1d5a】 $\mathrm{Q}\,\boldsymbol{m}(2,1)=-ab\,\mathrm{Z}_0$

【1d5b】 $\exists t_0\in\mathbb{R}$； $\exists\theta_0\in\mathbb{R}(\mathbb{Z})$；【1d5b1】and

[$\forall t\in\mathbb{R}$； $\forall n\in\mathbb{Z}$； $-t_0\leqq t-2nt_0\leqq 0\Rightarrow$【1d5b2】]

and [$\forall t\in\mathbb{R}$； $\forall n\in\mathbb{Z}$； $0\leqq t-2nt_0\leqq t_0\Rightarrow$【1d5b3】]

【1d5b1】 $t_0=\dfrac{\pi\beta}{-\alpha\sqrt{-\alpha}}$ and $\theta_0(0)=0$

【1d5b2】 $\exists z\in\mathbb{R}$； $z=r(t)-\mathrm{Q}\,\boldsymbol{m}(2,1)/\mathrm{E}$ and

$$t=2nt_0+\frac{1}{\alpha}\sqrt{\alpha z^2+2\beta z+c}+\frac{\beta}{\alpha\sqrt{-\alpha}}cos^{-1}\left(\frac{-\alpha z-\beta}{\sqrt{\beta^2-\alpha c}}\right)$$

and $\theta(t)=\theta_0(n)-\dfrac{h}{\beta'}\sqrt{\dfrac{2\beta'}{r(t)}+\mathrm{A}}$

【1d5b3】 $\exists z\in\mathbb{R}$； $z=r(t)-\mathrm{Q}\,\boldsymbol{m}(2,1)/\mathrm{E}$ and

$$t=2nt_0-\frac{1}{\alpha}\sqrt{\alpha z^2+2\beta z+c}-\frac{\beta}{\alpha\sqrt{-\alpha}}cos^{-1}\left(\frac{-\alpha z-\beta}{\sqrt{\beta^2-\alpha c}}\right)$$

and $\theta(t)=\theta_0(n)+\dfrac{h}{\beta'}\sqrt{\dfrac{2\beta'}{r(t)}+\mathrm{A}}$