\$\$ Temperature(t) = $\arctan(-0.0012 \text{ t}^3 + 0.4 \text{ t}^2 + 0.616 \text{ t} + 6120) + 0.65 \\ \cos(0.21 \text{ t} - 0.17) - \\ \frac{(0.34 \text{ t} + 0.16)}{1 + 0.03 \text{ (t} - 370.5)}^2 $$$

$$Temperature(t) = \arctan(-0.0012t^3 + 0.4t^2 + 0.616t + 6120) + 0.65\sin(0.24t + 1.23) - 0.27\cos(0.21t - 0.17) - \frac{\sin(0.34t + 0.16)}{1 + 0.03(t - 370.5)^2}$$