

$$\begin{aligned}
& 4.0kx(t) - \frac{10.0kx(t)}{\sqrt{x^2(t) + y^2(t) + z^2(t) + 20z(t) + 100}} \\
& - \frac{10.0kx(t)}{\sqrt{x^2(t) + y^2(t) + z^2(t) - 20z(t) + 100}} \\
& - \frac{10.0kx(t)}{\sqrt{x^2(t) + 20x(t) + y^2(t) + z^2(t) + 100}} \\
& - \frac{100.0k}{\sqrt{x^2(t) + 20x(t) + y^2(t) + z^2(t) + 100}} \\
& - \frac{10.0kx(t)}{\sqrt{x^2(t) - 20x(t) + y^2(t) + z^2(t) + 100}} \\
& + \frac{100.0k}{\sqrt{x^2(t) - 20x(t) + y^2(t) + z^2(t) + 100}} + 1.0 \\
& \qquad \qquad \qquad (1)
\end{aligned}$$