

$$m:=1$$

$$l:=1 \qquad v_0:=2\cdot \sqrt{g\cdot l}$$

$$g:=9.80665$$

$$a:=l$$

$$\textcolor{green}{v_0}:=0$$

$$\textcolor{green}{k}:=0.3$$

$$w_0:=$$

$$\varphi_0:=\frac{\textcolor{brown}{\pi}}{180}\cdot 5$$

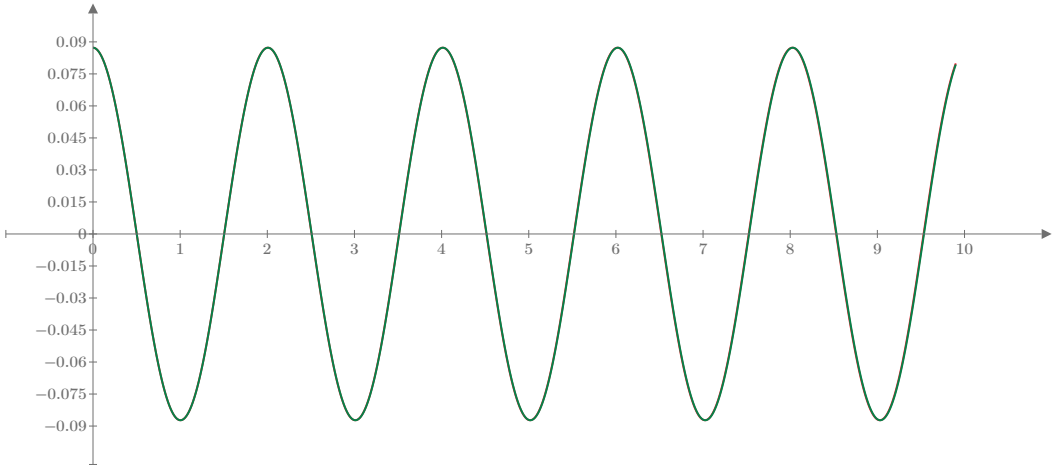
$$y:=\begin{bmatrix} v_0 \\ \varphi_0 \end{bmatrix}$$

$$D1\left(t,y\right):=\begin{bmatrix} -w_0^2\cdot \sin\left(y_1\right)-k\cdot y_0+a\cdot \sin\left(w_1\cdot t\right) \\ y_0 \end{bmatrix}$$

$$Z1:=\text{rkfixed}(\,$$

$$D2\left(t,y\right):=\begin{bmatrix} -w_0^2\cdot y_1-k\cdot y_0 \\ y_0 \end{bmatrix}$$

$$Z2:=\text{rkfixed}(\,$$



$$\textcolor{red}{Z2}^{(2)}$$

$$\textcolor{green}{Z1}^{(2)}$$

$$\textcolor{red}{Z2}^{(0)}$$

$$\textcolor{green}{Z1}^{(0)}$$