$m := 1$ $g := 9.80665$

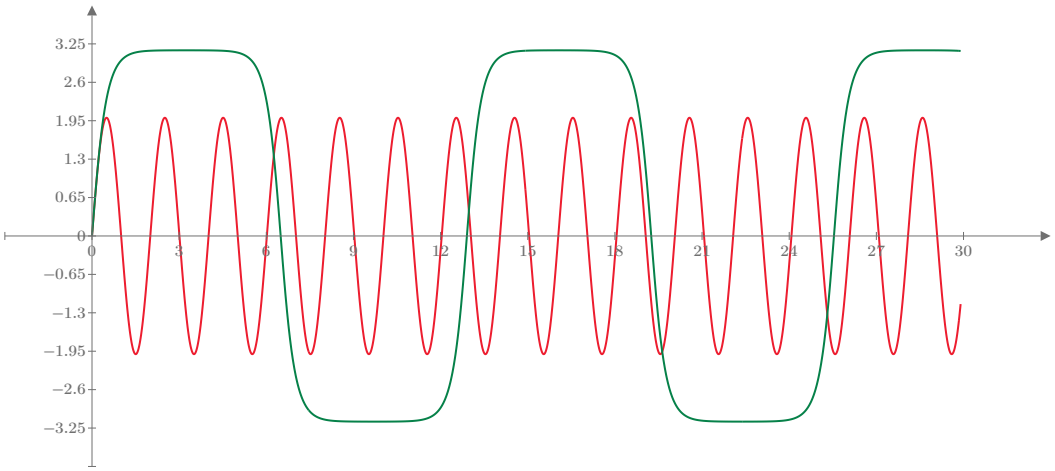
$l := 1$ $a := l$ $v_0 := 0$ $w_0 :=$

$k := 0.3$

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

$\varphi_0 := \frac{\pi}{180} \cdot 0$ $y := \begin{bmatrix} v_0 \\ \varphi_0 \end{bmatrix}$ $D1(t, y) := \begin{bmatrix} -w_0^{\,2} \cdot \sin(y_1) - k \cdot y_0 + a \cdot \sin(w_1 \cdot t) \\ y_0 \end{bmatrix}$ $Z1 := \text{rkfixed}($

$D2(t, y) := \begin{bmatrix} -w_0^{\,2} \cdot y_1 - k \cdot y_0 \\ y_0 \end{bmatrix}$ $Z2 := \text{rkfixed}($



$Z2^{\langle 2 \rangle}$

$Z1^{\langle 2 \rangle}$

$Z2^{\langle 0 \rangle}$

$Z1^{\langle 0 \rangle}$