

```
In [ ]: import sympy as smp
```

Voeg de juiste symbolen toe:

```
In [ ]: t, g, m1, m2, l1, l2 = smp.symbols('t, g, m1, m2, l1, l2')

theta1, theta2 = smp.symbols(r'\theta_1, \theta_2', cls=smp.Function)
theta1 = theta1(t)
theta2 = theta2(t)

theta1_dot = smp.diff(theta1, t)
theta2_dot = smp.diff(theta2, t)
theta1_ddot = smp.diff(theta1_dot, t)
theta2_ddot = smp.diff(theta2_dot, t)
```

Definieer beide vergelijkingen uit het stelsel:

```
In [ ]: L1 = smp.Eq(l1 * theta1_ddot * (m1 + m2) + m2 * l2 * theta2_ddot * smp.cos(theta1 - theta2), 0)
L2 = smp.Eq(m2 * l1 * theta1_ddot * smp.cos(theta1 - theta2) + m2 * l2 * theta2_ddot, 0)
```

Los de vergelijkingen op en laat zien:

```
In [ ]: solutions = smp.solve([L1, L2], (theta1_ddot, theta2_ddot), simplify=True)
display(smp.Eq(theta1_ddot, solutions[theta1_ddot]), smp.Eq(theta2_ddot, solutions[theta2_ddot]))
```