```
> restart:
> ODE := m·z''(t) + b·z'(t) + k·z(t) = 0;
```

$$ODE := m\,D^{(2)}(z)(t) + b\,D(z)(t) + k\,z(t) = 0 \quad (1)$$

```
> dsolve(ODE);
```

$$z(t) = \_C1\, e^{\frac{1}{2}\frac{\left(-b+\sqrt{b^2-4km}\right)t}{m}} + \_C2\, e^{-\frac{1}{2}\frac{\left(b+\sqrt{b^2-4km}\right)t}{m}} \quad (2)$$

```
> solve({C1 + C2 = 0, q1·C1 + q2·C2 = 0}, {C1, C2});
```

$$\{C1 = 0,\ C2 = 0\} \quad (3)$$

```
>
```