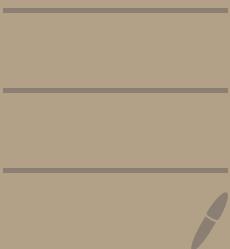# 1、处理对称系数 高次方程

1.

$$x^4 + 7x^3 + 14x^2 + 7x + 1 = 0$$

$$\Rightarrow x^2 + 7x + 14 + 7\frac{1}{x} + \frac{1}{x^2} = 0$$

$$\Rightarrow \left(x + \frac{1}{x}\right)^2 + 7\left(x + \frac{1}{x}\right) + 12 = 0$$

$$\Rightarrow t^2 + 7t + 12 = 0$$