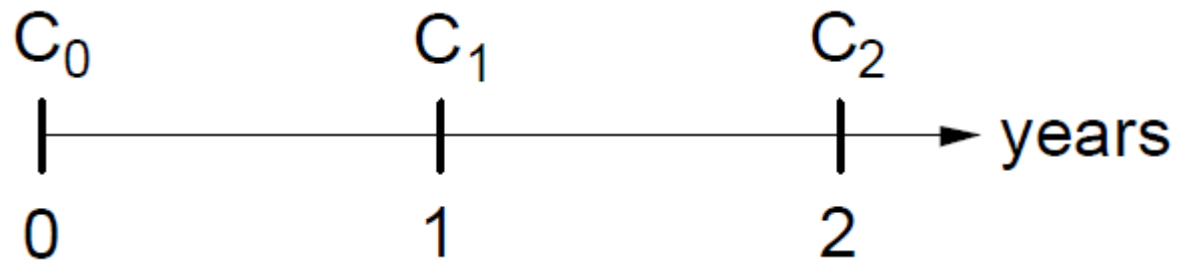# Compound interest

- interest compounded **once** per year
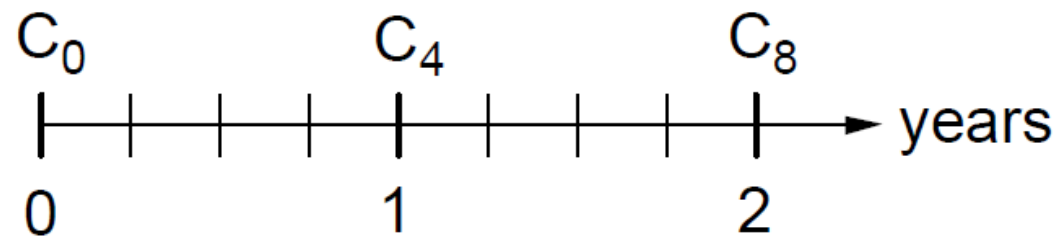

$$C_n = C_0\, q^n = C_0\, (1 + r_a)^n$$

Compound interest during the year

- interest compounded **m times** per year (m > 1)

    example: m = 4 (interest compounded quarterly)

$$C_n = C_0\, q^n = C_0 \left(1 + \frac{r_a}{4}\right)^n$$

    generally: $C_n = C_0\, q^n = C_0 \left(1 + \dfrac{r_a}{m}\right)^n$