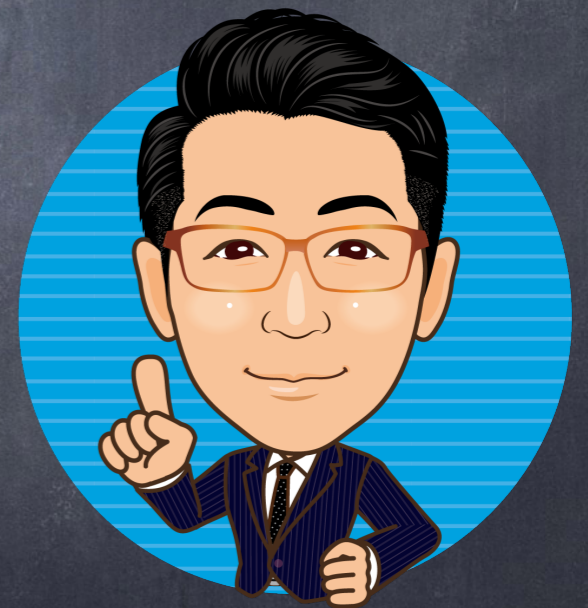


# 漸化式基礎演習

教科書 p.98

前回の復習です



$$(1) a_1 = 2, a_{n+1} = a_n + 3$$

等差型

公差

$$(2) a_1 = 1, \text{等比型}$$

$$a_{n+1} = 2a_n$$

公比

$$a_1 = 2, d = 3$$

$$a_n = 2 + (n-1) \times 3$$

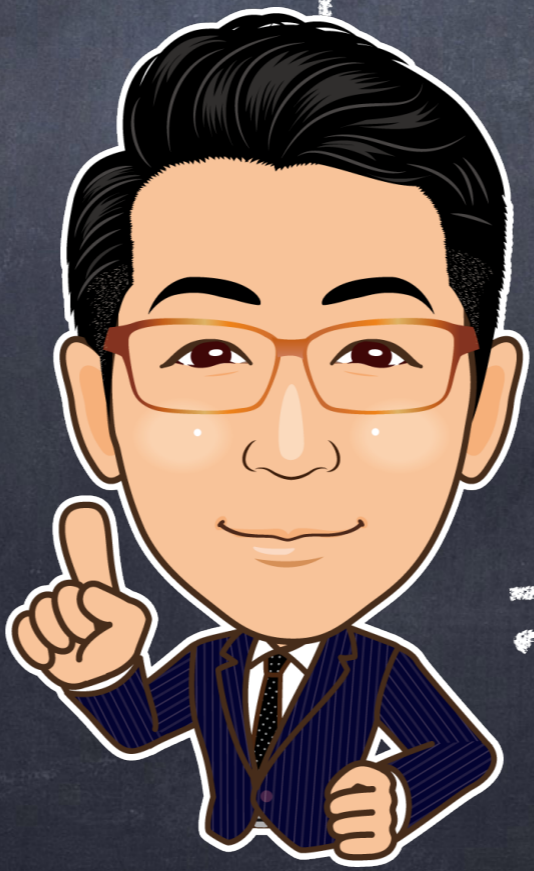
$$= 3n - 3 + 2$$

$$a_n = 3n - 1$$

$$a_1 = 1, r = 2$$

$$a_n = 1 \cdot 2^{n-1}$$

$$a_n = 2^{n-1}$$



$$(3) a_1 = 1, a_{n+1} = a_n + 2^n$$

階差型

$n \geq 2$  まで

$$a_n = a_1 + \sum_{k=1}^{n-1} 2^k$$

上から計算しよう!!

$$= 1 + 2 + 2^2 + \dots + 2^{n-1}$$

$$= \frac{1 \cdot (2^n - 1)}{2 - 1}$$

$$= 2^n - 1$$

JK.

$n=1$  から

$$a_1 = 2^1 - 1 = 1 \text{ まで}$$

J-2

$$\underline{\underline{a_n = 2^n - 1}}$$

