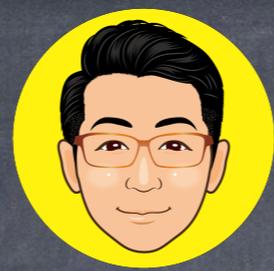


隣接 2 項間漸化式

教科書 p.99,100



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



⇒ 一般項 a_n を求めよ!!

等差型
or

or

に帰着せよ!!

等比型

⇒ 特殊な変形と利用可

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

変形してやる!!

$$a_{n+1} = 2a_n + 3$$

$$\left(\begin{array}{l} \alpha = 2\alpha + 3 \\ \alpha = -3 \end{array} \right)$$

$$a_{n+1} - (-3) = 2 \{ a_n - (-3) \}$$

$$\underline{a_{n+1} + 3} = 2 \underline{(a_n + 3)}$$

∴ z',

$$b_n = a_n + 3 \text{ とおくと}$$

$$b_{n+1} = a_{n+1} + 3, b_1 = a_1 + 3 = 4$$

geometric.

$$b_{n+1} = 2b_n, b_1 = 4$$

等比数列に化ける!!

$$b_n = 4 \cdot 2^{n-1} = 2^{n+1}$$

$$b_n = a_n + 3 \text{ より}$$

$$\underline{\underline{a_n = 2^{n+1} - 3}}$$

