

$$\textcircled{1} \{a_n\}_{n=1}^{\infty} = 2^n - n$$

• монотонность:

$$a_1 = 1; a_2 = 2; a_3 = 5; a_4 = 12$$

$$a_5 = 32 - 5 = 27$$

монот. , возрастает

• огранич-ть: ограничена
снизу

• $a_5 = 27$

$$\textcircled{2} \{b_n\}_{n=2}^{\infty} = \frac{1}{1-n}$$

$$b_1 = -1; b_2 = -\frac{1}{2}; b_3 = -\frac{1}{3};$$

$$b_4 = -\frac{1}{4}; b_5 = -\frac{1}{5}$$

монот, убывает

• ограничена сверху

• $b_5 = -\frac{1}{5}$

$$\textcircled{3} \{C_n\}_{n=1}^{\infty} = -1^n + \sqrt{2n}$$

$$\cdot C_1 = -1 + \sqrt{2}, C_2 = 1 + 2 = 3$$

$$C_3 = -1 + \sqrt{6}, C_4 = 1 + 2\sqrt{2}$$

$$C_5 = -1 + \sqrt{10}$$

не монот.

• огранич. снизу

$$\cdot C_5 = -1 + \sqrt{10}$$

$$\textcircled{4} \{d_n\}_{n=1}^{\infty} = (-1)^{2n} + \frac{1}{n^2}$$

$$\cdot d_1 = 1 + 1 = 2, d_2 = 1 + \frac{1}{4} = 1\frac{1}{4};$$

$$d_3 = 1\frac{1}{9}; d_4 = 1\frac{1}{16}; d_5 = 1\frac{1}{25}$$

монот., убывает

• огранич. сверху

$$\cdot d_5 = 1\frac{1}{25}$$

$$a_1 = 128, a_{n+1} - a_n = 6$$

$$a_{1+1} - a_1 = 6$$

$$a_2 - 128 = 6$$

$$a_2 = 134$$

$$a_3 = 128 + 6 \cdot 2$$

$$a_4 = 128 + 6 \cdot 3$$

$$a_{12} = 128 + 6 \cdot 11 = 194$$