

$1 \rightarrow 3 \rightarrow 9 \rightarrow 10 \rightarrow$ // متناهي
الآخر $\rightarrow n^{th} C_{n+1}$

$$d1 = n^r + 0 = n^r + \frac{(n-1)n}{r} = 0^r + \frac{0}{r} = 1$$

$$dr = n^r + 1 = n^r + \frac{(n-1)n}{r} = 1^r + \frac{1(r)}{r} =$$

$$dr = n^r + r \quad r+1 = d'$$

$$df = n^r + 4 \quad +10 =$$

$$+n = n^r + \frac{(n-1)n}{r} \rightarrow 10^r + \frac{9(10)}{r} = 100 + 90 = 190$$

$$0, 1, \dots, n-1 \rightarrow \frac{(n-1)n}{2}$$

2

$$r \rightarrow t_n = t_n - t$$

$$+n_{\text{بند}} + n_{\text{ج}} = 1n - 3 + n + 1$$

$$= 12n - 2 \rightarrow 12(11) - 2 = \boxed{130}$$

در این سوال هر چه n اندوه کوچکتر می شود
 $a_1 = \frac{(-1)^1}{1} = -1$
 $a_2 = \frac{(-1)^2}{2} = \frac{1}{2}$
 $a_3 = \frac{(-1)^3}{3} = -\frac{1}{3}$
 $a_4 = \frac{(-1)^4}{4} = \frac{1}{4}$
 $a_5 = \frac{(-1)^5}{5} = -\frac{1}{5}$
 $a_6 = \frac{(-1)^6}{6} = \frac{1}{6}$
 $a_7 = \frac{(-1)^7}{7} = -\frac{1}{7}$
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 $a_{112} = \frac{(-1)^{112}}{112} = \frac{1}{112}$

$$dn = -\omega n + \gamma\gamma \rightarrow dk = -\omega k + \gamma\gamma$$

$$dK = b_P = -fL = -\alpha K + Y \rightarrow \Delta K = 0 \Rightarrow \boxed{K = 1f}$$

$$d_{10} - d_0 = 12 = 3d \Rightarrow d = 4$$

$$d_4 - d_1 = 2d = 8 \times 4 = 32$$

$$d_2 = 5 \quad d_3 = 12 \quad d = \frac{d_3 - d_2}{2} = \frac{12 - 5}{2} = 3.5$$

$$d_1 - d_0 - d = 5 - 0 = 5$$

$$d_2 - d_1 - d = 12 - 5 = 7$$

$$d_1 = 5 \rightarrow 3.5$$

$$d_2 = 12 \rightarrow 3.5$$

$$d_3 = 12 \rightarrow 3.5$$

$$t_n = \frac{1}{2}, \frac{4}{5}, \frac{10}{9}, \frac{14}{11}$$

$$t_n = \frac{b_n}{d_n} = \frac{5n-2}{2n+3}$$

$$\frac{5n-2}{2n+3} < \frac{1}{2}$$

$$5n-2 < 2n+3$$

$$3n < 5$$

$$n < 1.66 \rightarrow n \in \mathbb{N} \Rightarrow n \in \{1, 2, 3, 4, 5\}$$

$$t_n = 4, 9, 9, 9, 0, \dots$$

$$+2, +1, -1, -3, -2, -3$$

$$-3 = 2d \Rightarrow d = -\frac{3}{2} = -1.5$$

$$t_n = An^2 + Bn \rightarrow A = d = -1.5 \Rightarrow 3A = -4.5$$

$$t_n = -1.5n^2 + Bn \rightarrow -1.5(1)^2 + B = 4 \rightarrow -1.5 + B = 4 \Rightarrow B = 5.5 \Rightarrow 2B = 11$$

$$3A + 2B = -4.5 + 11 = 6.5$$

$$t_n = -4, -1, 0, \dots \rightarrow d = 3 \Rightarrow d = 1$$

$$t_n = n^2 + bn - 4$$

$$d_2 = 1$$

$$d_3 = 1$$

$$d_1 = d_2 - d = 1 - 0 = 1 \Rightarrow t_n = 2n + 1$$

$$n^2 - n - 4 = 2n + 1$$

$$n^2 - n - 4 - 2n - 1 = 0 \quad n^2 - 3n - 5 = 0$$

$$(n-4)(n+1) = 0 \Rightarrow n_1 = 4 \rightarrow \checkmark$$

چون $n = -1 \rightarrow x \rightarrow$ باید معنای طبیعی باشد