

$$E_n = 5, 9, 13, 17, \dots$$

$$E_n = 2n + 1 \rightarrow E_1 = 3$$

$$E_n = 2n + 1$$

سوال ۱

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$$E_n = 5, 9, 13, 17, \dots$$

$$E_n = 2n + 1$$

$$E_n = 2n + 1 \rightarrow E_1 = 3$$

$$S_n = \frac{n}{2} (2a + (n-1)d) = \frac{n}{2} (2 \cdot 3 + (n-1) \cdot 4) = \frac{n}{2} (2 + 4n - 4) = \frac{n}{2} (4n - 2) = n(2n - 1)$$

سوال ۲

سوال ۳

$$1 + \sqrt{2}, \sqrt{2}, \sqrt{2} - 1$$

$$E_n = (1 - \sqrt{2})^n + (\sqrt{2})^n$$

$$\sqrt{2} + \sqrt{2} = 2\sqrt{2}$$

$$a = 1 - \sqrt{2}$$

$$E_{n+1} = 2 - 2\sqrt{2} + \sqrt{2} = 2 - \sqrt{2}$$

$$E_n = 2 - \sqrt{2} + \sqrt{2} = 2$$

$$E_{n+1} - E_n = 2 - \sqrt{2} - 2 = -\sqrt{2}$$

$$E_{n+1} - E_n = -\sqrt{2}$$

$$a_n = 2^n, r = 2, y = 2$$

$$b_n = x, r = 2, y = 2$$

$$x = 2, r = 2, y = 2$$

$$a_n = 2^n, r = 2, y = 2$$

$$a_n = 2^n, r = 2, y = 2$$

$$xy = P$$

$$x + 2x - 1 = 2$$

$$2x - 2, 2x - 1, 4x \rightarrow -2, 0, 2, 4 \rightarrow E = 4$$

$$E = 4$$

$$E = 4$$

$$a_n = 2, 5, 8, \dots \rightarrow a_n = 3n - 1 \rightarrow a_1 = 2, a_2 = 5, a_3 = 8, \dots$$

$$b_n = 2, 5, 8, \dots \rightarrow b_n = 3n - 1 \rightarrow b_1 = 2, b_2 = 5, b_3 = 8, \dots$$

$$\begin{cases} a_1 + a_2 + a_3 = 15 \\ a_2 + a_3 + a_4 = 15 \\ a_3 + a_4 + a_5 = 15 \end{cases} \rightarrow \begin{cases} a_1 + a_2 = 10 \\ a_2 + a_3 = 10 \\ a_3 + a_4 = 10 \end{cases} \rightarrow \begin{cases} a_1 = 10 - a_2 \\ a_2 = 10 - a_3 \\ a_3 = 10 - a_4 \end{cases}$$

$$a_1 + a_2 + a_3 = 15$$

$$\frac{a_1 + a_2 + a_3}{3} = \frac{15}{3} = 5$$

$$\begin{cases} a_1 + a_2 + a_3 = 15 \\ a_2 + a_3 + a_4 = 15 \\ a_3 + a_4 + a_5 = 15 \end{cases} \rightarrow \begin{cases} a_1 = 10 - a_2 \\ a_2 = 10 - a_3 \\ a_3 = 10 - a_4 \end{cases} \rightarrow a_1 = 10 - (10 - a_3) = a_3$$

$$a_n = 3n - 1$$

$$a_1 = 2$$

$$S_4 = 4S_2 \rightarrow 4a + 6d = 4(a + 2d) \rightarrow 4a + 6d = 4a + 8d \rightarrow 6d = 8d \rightarrow d = 0$$

$$\frac{a_1}{a_2} = \frac{2}{5}$$

$$y \begin{pmatrix} a_1 = 11 \\ a_2 = 2 \\ a_3 = 3a \end{pmatrix} \xrightarrow{HE} a_2 = 22$$

$$b_n = \frac{1}{\sqrt{2}}, \frac{1}{\sqrt{2}}, \frac{1}{\sqrt{2}}, \frac{1}{\sqrt{2}}, \dots$$

$$r = \frac{a_2 - a_1}{n+1} \Rightarrow d = \frac{-1A}{n+1} = -\frac{A}{n+1}$$

سوال ۱۰۰ کے دائرہ خصوصی