

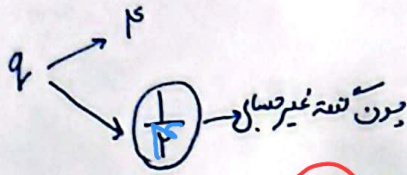
نام و نام خانوادگی: شماره: ۱۵۰۰ کلاس: پاسخنامه تشریحی

۱۷/۱۷۵

$$\frac{r_v}{q} = r_v + r_v \cdot q = 24 \rightarrow r_v^2 = 24 \rightarrow r_v = 4 \rightarrow \frac{1}{q} + 4 + 4q = 21 \rightarrow \frac{1}{q} + 4q = 17 \rightarrow 4q^2 - 17q + 1 = 0$$

$$\Delta = 289 - 16 = 273$$

$$\frac{17-15}{8} \text{ و } \frac{17+15}{8}$$



✓

$$S_v = \frac{a_1(1 - \epsilon^4)}{1 - \epsilon} = \frac{12v}{8} \leftarrow a_1 = 2 \quad \epsilon = -2 \times$$

$$(4x)^2 = (x+2)(x^2-2) \rightarrow 4x^2 = x^3 + 2x^2 - 1 \rightarrow 2x^2 = x^3 - 1 \rightarrow x = \sqrt[3]{2-1} \rightarrow \text{چون نزول است}$$

$$2 + (-2) + 1 + (-1) + 22 + (-2) + 128 = 14$$

✓

$$t_1 + t_1 r + t_1 r^2 + t_1 r^3 + t_1 r^4 = ? \rightarrow t_1(1 + r + r^2 + r^3 + r^4) = \frac{24 \times 1}{1-1} = 24 \times 5$$

✓

$$q^{\omega+1} = \frac{24}{1} \rightarrow q^{\omega} = 24 \rightarrow q^{\omega+2} \rightarrow t_{\omega} = 1 \times 2^3 = 1 = B_{\omega} \quad \omega = 0, 1$$

$$1 \rightarrow \frac{24}{q} \rightarrow \frac{24}{q} = 1 \cdot \omega = 1 \rightarrow \frac{24}{q} = 1 \rightarrow q = 24$$

$$B = -1 \rightarrow 24 \times 10$$

$$A = 24 \times 10$$

1/10

$$\frac{-24}{4} \text{ و } \frac{-10}{4} \text{ و } \dots \rightarrow a_{1,1} = -24 + \left(\frac{1}{4}\right)100 = -24 + 25 = 1$$

$$t_n = 128 \times q^n = 1 \rightarrow q^n = \frac{1}{128} \rightarrow q = \frac{1}{2}$$

✓

$$(a_1 + \sqrt{2}d)(a_1 + \sqrt{2}d) = (a_1 + \sqrt{2}d)^2 \rightarrow a_1^2 + 1 \cdot \sqrt{2}a_1 + \sqrt{2}d^2 = a_1^2 + 1\sqrt{2}a_1 + \sqrt{2}d^2 \rightarrow \sqrt{2}d^2 = \sqrt{2}d^2 \rightarrow d = 0$$

$$\sqrt{2}d^2 = -\sqrt{2}d^2 \rightarrow 1 \cdot d^2 = -d^2 \rightarrow d^2 = -\frac{d^2}{1}$$

1/5

d = 0

ی‌تواند باشد چون مساوی
نقشه جلاست مستقیمند

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$$(a_1 + d)(a_1 + \sqrt{2}d) = (a_1 + \sqrt{2}d)^2 \rightarrow a_1 + \sqrt{2}a_1 + \sqrt{2}d^2 = a_1^2 + \sqrt{2}a_1 + \sqrt{2}d^2 \rightarrow \sqrt{2}a_1 = \sqrt{2}d^2 \rightarrow d = a_1$$

$$\begin{aligned} t_1 = a_1 + d = \sqrt{2}a_1 = \frac{1}{\sqrt{2}} \rightarrow a_1 = \frac{1}{\sqrt{2}} \\ t_2 = a_1 + \sqrt{2}d = \sqrt{2}a_1 = \sqrt{2} \cdot \frac{1}{\sqrt{2}} = 1 \end{aligned} \quad \left. \begin{aligned} \frac{1}{\sqrt{2}}, \frac{1}{\sqrt{2}}, \dots \rightarrow \frac{1}{\sqrt{2}} \times \sqrt{2} = \sqrt{2} \end{aligned} \right\}$$

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2 ✓

$$\sqrt{2}t_1q + \sqrt{2}t_1q^2 + t_1q^3 \rightarrow \sqrt{2}t_1q + \sqrt{2}t_1q^2 = \sqrt{2}t_1q^2$$

$$\begin{aligned} \sqrt{2}q(\sqrt{2} + q^2) = \sqrt{2}q^3 \rightarrow \sqrt{2} + q^2 = q^3 \rightarrow q^3 - q^2 - \sqrt{2} = 0 \\ \Delta = 18 - 12 = 6 \end{aligned} \quad \left. \begin{aligned} \frac{1 \pm \sqrt{6}}{2} \end{aligned} \right\}$$

8

2 ✓

$$q_1 = \frac{\omega}{\sqrt{2}}, q_2 = \frac{1}{\sqrt{2}}, q_3 = -\frac{\sqrt{2}}{\sqrt{2}} \rightarrow \left(\frac{\omega}{\sqrt{2}} + x\right)\left(\frac{1}{\sqrt{2}} - \sqrt{2}x\right) = \left(\frac{1}{\sqrt{2}} + x\right)^2$$

$$\begin{aligned} \frac{1}{\sqrt{2}}x + \frac{1}{\sqrt{2}}x = -\frac{\sqrt{2}}{\sqrt{2}} \rightarrow x = -\frac{\sqrt{2}}{\sqrt{2}} \rightarrow t_1 = \frac{\omega}{\sqrt{2}} - \frac{\sqrt{2}}{\sqrt{2}} = -\sqrt{2} \\ t_2 = \frac{1}{\sqrt{2}} - \frac{\sqrt{2}}{\sqrt{2}} = -\omega \\ t_3 = -1 - \frac{\sqrt{2}}{\sqrt{2}} = -\frac{\sqrt{2}}{\sqrt{2}} \end{aligned} \quad \left. \begin{aligned} q = -\frac{\omega}{\sqrt{2}} = -\frac{\omega}{\sqrt{2}} \end{aligned} \right\}$$

2 ✓

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10

$$a_1 + a_1\sqrt{2}, a_1\sqrt{2} = \sqrt{2} \rightarrow \sqrt{2}b + \sqrt{2}b = \sqrt{2} \rightarrow \sqrt{2}b = \sqrt{2} \rightarrow b = 1$$

$$b_1(b_1 + \sqrt{2}d) = b_1^2 + \sqrt{2}b_1d + \sqrt{2}d^2 \rightarrow \sqrt{2}b_1d = \sqrt{2}d^2 \rightarrow d = 0 \quad \left. \begin{aligned} \sqrt{2}d = \sqrt{2}d \end{aligned} \right\}$$

2 ✓

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