

۱۷, ۲۵

زهراسادات حسینی

page: ()

Subject:

Year:

Month:

Day:

$$a + ar + ar^2 = 21$$

$$a(1+r+r^2)=21 \rightarrow \frac{a}{r}(1+r+r^2)=21 \rightarrow 4r^2+4r+1=21r \rightarrow 4r^2-17r+1=0$$

$$a \times ar \times ar^2 =$$

$$ar^3 = 48$$

$$ar = 4$$

$$a = \frac{4}{r}$$

$$\Delta = b^2 - 4ac \rightarrow 17^2 - 4 \times 4 \times 1 = 289 - 16 = 273$$

$$\frac{17 \pm \sqrt{273}}{4} \rightarrow \begin{matrix} \text{خ} \\ \frac{1}{4} \checkmark \end{matrix}$$

$$(x^2 - 2)(x^2 + 4) = 4x^2 \rightarrow$$

$$x^4 + 2x^2 - 1 = 4x^2 \rightarrow x^4 - 2x^2 - 1 = 0$$

$$\Delta = b^2 - 4ac \rightarrow 4 + 4 = 8 \quad x^2 = \frac{2 \pm \sqrt{8}}{2} = 1 \pm \sqrt{2}$$

$$x = 2 \rightarrow 1, 4, 7 \quad \checkmark \rightarrow y = \frac{1}{x}$$

$$x = -2 \rightarrow 1, -4, 7 \quad \times$$

$$x^2 = 4 \rightarrow x = \pm 2$$

$$S_{\infty} = a \left(\frac{1-q^n}{1-q} \right) = 1 \left(\frac{1 - \frac{1}{2^n}}{1 - \frac{1}{2}} \right) = \frac{2^n - 1}{2^{n-1}}$$

$$a_1 + a_2 + a_3 + a_4 + a_5 = ?$$

$$a + ar + ar^2 + ar^3 + ar^4 = ?$$

$$a(1+r+r^2+r^3+r^4) = \frac{a}{r} \left(\frac{1-r^5}{1-r} \right) = \frac{1}{1} \left(\frac{1-1}{1-1} \right) = 0$$

$$\downarrow \quad \downarrow$$

$$r=1 \quad \frac{1}{1}$$

Arman

$$r \text{ و } b: b = \frac{a+c}{2} = \frac{9\Delta}{2}, r, \Delta \rightarrow A$$

1, 2

(5)

$$r^{n+1} = \frac{b}{a} \rightarrow r^4 = \frac{4\Delta}{1} \rightarrow r = 2$$

$$r = -2 \quad B = -1$$

$$A + B = -\epsilon_0, \omega - 1 = 2\epsilon_0, \omega$$

$$r^4 = 1 \times 1 = 1 \rightarrow B$$

$$A + B = 2\epsilon_0, \omega + 1 = \epsilon_0, \omega$$

$$-2\epsilon_0, -\frac{4\Delta}{2}$$

(5)

$$d = \frac{-9\Delta}{2} + 2\Delta = \frac{-9\Delta + 4\Delta}{2} = \frac{1}{2}$$

$$a_{n+1} = a_n + 1 \cdot d$$

$$-2\Delta + 2\Delta = 1$$

$$1 \times 1, a_1, \dots$$

$$a_n = 1 \rightarrow ar^n = 1 \rightarrow 1 \times r^n = 1$$

$$r^n = \frac{1}{1 \times 1}$$

$$r = \frac{1}{1}$$

$$a_1 = a_1 + r^2$$

$$a_2 = a_1 + r^4$$

$$a_3 = a_1 + r^6$$

$$(a_1 + 4d)^2 = (a_1 + r^2d)(a_1 + r^4d) \rightarrow$$

$$a_1^2 + 8a_1d + 16d^2 = a_1^2 + 10a_1d + 16d^2$$

$$8a_1d + 16d^2 = 10a_1d + 16d^2$$

$$a_1 + 10d = 0 \Rightarrow a_1 = -10d$$

$$d = 0$$

$$d = 0$$

$$d = \frac{a}{-10}$$

$$a_1, a_2, a_3, \dots, a_n$$

$$\downarrow \quad \downarrow \quad \downarrow$$

$$a+d \quad a+2d \quad a+3d \quad \dots \quad a+nd$$

(17)

$$(a+d)(a+2d) = (a+3d)^2 \rightarrow a^2 + 1ad + 2d^2 = a^2 + 6ad + 9d^2$$

$$2ad - 2d^2 = 0$$

$$a = d$$

$$a_1 = a + d \rightarrow 1a$$

$$a_2 = a + 2d \rightarrow 2a$$

$$a_n = a + nd \rightarrow na$$

$$9 = 2$$

$$a_1 = a, d$$

$$\frac{1}{n} \times (2)^4 = 2^4 \times (1/2)$$

$$1a, 2a, 3a, \dots, na$$

$$\downarrow \quad \downarrow \quad \downarrow$$

$$1ar, 2ar, 3ar, \dots, nar$$

$$1ar + 2ar = 3ar \rightarrow 1 + 2 = 3$$

$$r = 1$$

$$r^2 - 2r + 1 = 0 \rightarrow r = \frac{2 \pm \sqrt{4 - 4}}{2} \rightarrow r = 1$$

غیر صحیح

$$\frac{-F}{2}, \frac{V}{\varepsilon}, \dots$$

$$a_{\varepsilon} = a_1 + \frac{2}{\varepsilon} d \rightarrow \frac{2}{\varepsilon} = \frac{\Delta}{F}$$

$$a_{\frac{1}{\varepsilon}} = a_1 + \frac{V}{\varepsilon} d \rightarrow \frac{V}{\varepsilon} = \frac{1}{F}$$

$$a_{\frac{1}{\varepsilon}} = a_1 + \frac{1}{\varepsilon} d \rightarrow \frac{1}{\varepsilon} = -1$$

$$\frac{\Delta}{F} + x = \frac{1}{F} + x = -1 + x$$

$$\left(x + \frac{\Delta}{F}\right)(x - 1) = \left(x + \frac{1}{F}\right)^2 \rightarrow$$

$$x^2 + \frac{1}{F}x - \frac{\Delta}{F} = x^2 + \frac{1}{F} + \frac{1}{F}x \rightarrow \frac{1}{F}x + \frac{21}{14} = 0$$

$$\frac{1}{F} \left(x + \frac{21}{\varepsilon}\right) = 0$$

$x + \frac{\Delta}{F}$	$x + \frac{1}{\varepsilon}$	$x - 1$
$\downarrow$	$\downarrow$	$\downarrow$
$-\frac{\Delta}{F}$	$-\frac{1}{\varepsilon}$	-21
$\times \frac{\Delta}{F}$	$\times \frac{1}{\varepsilon}$	$\times \frac{1}{F}$

$$x = -\frac{21}{F}$$

$$\Delta = \frac{21}{F}$$

$$a_1 = a$$

$$a_2 = ar$$

$$a_3 = ar^2$$

$$a + ar + ar^2 = \dots$$

$$a(1 + r + r^2) = \dots \Rightarrow a = \frac{vr}{(1 + r + r^2)}$$

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$$a_1 = a$$

$$ar = a + d$$

$$ar^2 = a + 4d$$

$$\} d = ar - a = a(r - 1)$$

$$\rightarrow a + 4(a(r - 1)) = ar^2$$