

$$t_1 + t_2 + t_3 = 21$$

$$t_1(1 + r + r^2)$$

$$t_1 \times t_2 \times t_3 = t_1^3 r^3 = 64 \rightarrow t_1 r = 4$$

(۲) ✓

$$\frac{r}{r} + r + 4r = 2$$

$$\frac{1}{r} + 1 + r = 5,25$$

$$\frac{1}{r} + r = 4,25 \rightarrow r = \frac{1}{4}$$

چون غیر حسابی است

۱۴,۵

$$(2x)^2 = (x^2 + 4)(x^2 - 2) \rightarrow 4x^2 = x^4 + 2x^2 - 8$$

$$2x^2 = x^4 - 8 \rightarrow x = 2 \text{ و } -2$$

چون نزولی

$$S_n = a \frac{(q^n - 1)}{(q - 1)}$$

$$1 \times \frac{27}{128} = \frac{127}{128}$$

(۲) ✓

$$t_1 + t_1 r + t_1 r^2 + t_1 r^3 + t_1 r^4 = ?$$

$$\frac{t_1}{243} (1 + r + r^2 + r^3 + r^4) = 243 \times \frac{121}{81} = 363$$

(۲) ✓

$$t_1 = 1$$

$$t_v = 64$$

(۲) ✓

$$1 + 64 = 65, \omega = A$$

$$A + B = 32, \omega + 1 = 40, \omega \leq 32, \omega - 1 = 24, \omega = 24$$

$$t_1 = 1$$

$$t_v = 64 \rightarrow t_1 r^4$$

$$\frac{t_1 r^4}{t_1} = 64 \rightarrow r = 2$$

$$1 \times 2^3 = 8 = B = t_f$$

$$r = -2 \rightarrow 1 \times (-2)^3 = -8 = B = t_f$$

$$-\frac{97}{4} - \frac{95}{4} \dots \xrightarrow{\text{جدول}} t_{101} = -\frac{97}{4} + (100 \times \frac{1}{4}) = 1$$

$$d = \frac{1}{4}$$

$$t_1 = 128$$

$$t_8 = 1 \rightarrow t_1 r^7 = 1$$

$$\frac{128}{1} = \frac{t_1}{t_1 r^7} \rightarrow r = \frac{1}{2}$$

(۲) ✓

۵

$$t_1 + 2d, t_1 + 4d, t_1 + 8d \rightarrow t_v = t_r \times a_2$$

$$(t_1 + 4d)^2 = (t_1 + 2d)(t_1 + 8d) \rightarrow t_1^2 + 8d^2 + 12dt_1 = t_1^2 + 10dt_1 + 16d^2$$

$$2dt_1 = -2d^2 \rightarrow 2t_1 = -10d \rightarrow t_1 = -5d$$

$d=0 \rightarrow$ صح مایل قبول است چون سوال تلفظ

جملات می آیند

1/8

x

$$t_r = t_r \times t_8 \rightarrow (t_1 + 3d)^2 = (t_1 + d)(t_1 + 9d)$$

$$t_1^2 + 9d^2 + 6dt_1 = t_1^2 + 10dt_1 + 9d^2$$

$$r=2$$

$$t_1 = \frac{1}{r}$$

$$2d^2 = 2dt_1 \rightarrow d=0$$

$$d=t_1$$

$$t_{10} = \frac{1}{r} \times r^9 = 128$$

2 ✓

v

$$3t_r, 2t_r, t_r \rightarrow \frac{3t_r + t_r}{2} = 2t_r \rightarrow \frac{3t_1 r + t_1 r^3}{2} = 2t_1 r^2$$

$$t_1 r(r^3 + 3) = 4t_1 r^2 \rightarrow r^3 + 3 = 4r \rightarrow 3 = r(4 - r)$$

3 ✓

$$r=3$$

h

$$a_r = \frac{5}{r}, a_8 = \frac{1}{r}, a_{13} = -\frac{r}{r}$$

$$\left(\frac{5}{r} + x\right)(-1 + x) = \left(\frac{1}{r} + x\right)^2 \rightarrow x^2 + \frac{1}{r}x - \frac{5}{r} = x^2 + \frac{1}{r}x + \frac{1}{r^2} \rightarrow x = -\frac{r}{r}$$

$$t_1 = -r, t_r = -\frac{r^2}{r}, t_r = -5$$

$$r = \frac{-5}{-r} = \frac{5}{r}$$

4 ✓

$$a_n: a_1, a_4, a_9 \quad b_n: b_1, b_4, b_9$$

5

$$a_1 + a_4 + a_9 = 18 \rightarrow b + 16b + 81b = 18$$

$$100b = 18 \rightarrow b = 1$$

$$d=v$$

$$d=vb$$

$$b_1(b_1 + 9d) = b^2 + 18bd + 81d^2 \rightarrow vb d = d^2 \rightarrow d=0 \leq d=vb$$

1.