

$$44 = \sqrt{(a_1 a_2)^2} \Rightarrow a_1^2 a_2^2 = 44 \quad a_1 + a_2 + a_1^2 = 21$$

$$\Rightarrow a_1 a_2 = 4$$

$$\frac{4}{a_1} + 4 a_1 = 18 \Rightarrow a_1 = \frac{1}{4}$$

$a_1 = 1$

$$n^4 + 2n^2 - 1 = 4m^2 \Rightarrow n^2 - 2m^2 - 1 = 0$$

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$$\Rightarrow n = 2, m = 1$$

$n = 2$

$$a_1 + a_1^2 + a_1^3 + a_1^4 = \frac{4}{a_1} \Rightarrow a_1 = \frac{1}{4}$$

$$S_n = r^n \left(\frac{1 - (\frac{1}{r})^n}{\frac{1}{r}} \right) = \frac{222}{\frac{1}{4}} = \frac{222}{4} = 55.5$$

$$44 = 2^4 \quad 2^4 a^4 = 44 \Rightarrow a = 2$$

$$A + B = 2^4 \omega (0.7) \frac{4}{\omega}$$

$$A = 2^4 \omega \frac{4}{\omega} = 2^4 = 16$$

$$A = \frac{1}{4} \Rightarrow a_{1.1} = -24 + 25 = 1$$

$$\Rightarrow t_n = 1 \quad t_1 = 2^4$$

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

$$(a+rd)(a+rd) = (a+rd)^2 \Rightarrow a^2 + 1 \cdot ad + 1 \cdot ad + r^2 d^2 = a^2 + 2ad + r^2 d^2$$

$$-2ad - r^2 d^2 = 0 \rightarrow ad + \frac{1}{2} r^2 d^2 = 0$$

$$\text{پس } d=0 \rightarrow a=0 \text{ و } d=0 \text{ و } r=0 \text{ و } a=0$$

$$(a+rd)(a+rd) = (a+rd)^2 \Rightarrow 2ad - r^2 d^2 = 0 \rightarrow a = \frac{r^2 d}{2}$$

$$a = \frac{r^2 d}{2} \rightarrow \frac{b_r}{b_1} = \frac{r^2 d}{2} \rightarrow r = \sqrt{\frac{2b_1}{d}}$$

$$2aq + aq^2 = 2aq^2 \rightarrow a(q^2 - 2q + 1) = 0$$

$$a(q-1)^2 = 0 \rightarrow q = 1$$

$$a_1 = \frac{1}{f} \rightarrow (n + \frac{1}{f})(n-1) = (n + \frac{1}{f})^2$$

$$\Rightarrow \frac{-n}{f} - \frac{1}{f^2} = 0 \Rightarrow n = -\frac{1}{f}$$

$$ra + 1 \cdot d = r^2$$

$$ad^2 = a + r^2$$

$$1 + a^2 + a^4$$

the end.....