

نام و نام خانوادگی سید حسن حسینی پاسخنامه تشریحی تکلیف شماره ۱۵ کلاس دهم A

$$a_1 + a_2 + a_3 = 21 \Rightarrow a_1(1+r+r^2) = 21 \Rightarrow \frac{r}{1} (1+r+r^2) = 21 \Rightarrow r + r^2 + r^3 = 21r \Rightarrow r^3 - 17r + 21 = 0 \Rightarrow r = 1 \text{ (try)}$$

$$a_1 \times a_2 \times a_3 = 64 \Rightarrow a_1^3 r^3 = 64 \Rightarrow a_1^3 = 64 \Rightarrow a_1 = 4$$

$$\frac{17 \pm \sqrt{15}}{2} = 4 \text{ or } \frac{1}{4} \Rightarrow \text{if } r = \frac{1}{4} \Rightarrow a_1 = 4 \Rightarrow a_2 = 1 \Rightarrow a_3 = \frac{1}{4} \Rightarrow \text{not integer}$$

$$4 = \frac{1}{r} \Rightarrow r = \frac{1}{4} \checkmark$$

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$$a_1 = x^2 - 2/a_2 = 2x/a_3 = x^2 + 2 \Rightarrow (2x)^2 = (x^2 - 2)(x^2 + 2) \Rightarrow 4x^2 = x^4 - 4 \Rightarrow x^4 - 4x^2 - 4 = 0$$

$$\text{if } y = x^2 \Rightarrow y^2 - 4y - 4 = 0 \Rightarrow y = 2 \pm 2\sqrt{2} = x^2 \Rightarrow x = \sqrt{2 \pm 2\sqrt{2}} \Rightarrow a_1 = x^2 - 2 = 2 \pm 2\sqrt{2} - 2 = \pm 2\sqrt{2}$$

$$2 \pm 2\sqrt{2} - 2 = \pm 2\sqrt{2} \Rightarrow a_2 = 2 \pm 2\sqrt{2} \Rightarrow a_3 = x^2 + 2 = 2 \pm 2\sqrt{2} + 2 = 4 \pm 2\sqrt{2}$$

$$= 4 \pm 2\sqrt{2} \Rightarrow \text{not integer} \Rightarrow \text{no solution}$$

$$2\sqrt{2} \times \frac{1}{\sqrt{2}} = 2 \checkmark$$

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جواب صفی آخذ...

$$1 + 9 + 9^2 + 9^3 + 9^4 = \frac{121}{11} \Rightarrow a(1 + 9 + 9^2 + 9^3 + 9^4) = \frac{121}{11} a = a_1 - a_2 + a_3 - a_4 + a_5 = \frac{121}{11}$$

$$1296 = 2 \times 11 \checkmark$$

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$$1 \ 0 \ 0 \ 0 \ 0 \ 0 \ 64 \Rightarrow A = 64 + 1 = 65 \Rightarrow A = \frac{25}{4} = 25/4 \checkmark$$

$$1 \ 0 \ 0 \ 0 \ 0 \ 0 \ 64 \Rightarrow B = 1 \times 64 \Rightarrow B = \sqrt{64} = 8 \checkmark$$

$$A + B = 25/4 + 8 = 57/4 \checkmark$$

$$a = -2 \quad b = -8 \quad A + B = 25/4$$

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$$-\frac{1}{2}, -\frac{1}{4}, \dots$$

$$a_1 = a + (n-1)d = -2 + (n-1)(-\frac{1}{2}) = 1$$

$$\frac{1}{2} = d \Rightarrow a_1 = a + (n-1)d = -2 + (n-1)(-\frac{1}{2}) = 1$$

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$$128, 64, \dots \Rightarrow a_1 = 1 = ar^v \Rightarrow r^v = 1 \Rightarrow r = \frac{1}{r} \checkmark$$

$$a_2, a_1, a_0 \\ (a+rd)(a+rd)(a+rd) \Rightarrow (a+rd)^3 = (a+rd)(a+rd) = a^2 + 1rd + rd^2 = a^2 + \frac{1ad+rad+1rd}{1 \cdot ad} \\ \Rightarrow 1ad + 1rd^2 = 0 \Rightarrow rd(a+1d) = 0 \xrightarrow{+rd} a+1d = 0 \Rightarrow d = -\frac{a}{1} \checkmark$$

قریب حاصل یا صافی یا $\frac{-a}{1}$ $\frac{1}{1}$ $\frac{1}{1}$

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$$a_2, a_1, a_0 \\ (a+rd)(a+rd)(a+rd) \Rightarrow (a+rd)^3 = (a+rd)(a+rd) = a^2 + 1rd + rd^2 = a^2 + \frac{1ad+rad+1rd}{1 \cdot ad} \\ \Rightarrow -1ad + 1rd^2 = 0 \Rightarrow rd(-a+d) = 0 \Rightarrow -d(1+d) = 0 \Rightarrow a=d \Rightarrow \frac{1}{1} = \frac{1}{1} \\ a_1 = a_2 r^1 = \frac{1}{1} \times r^1 = r^1 = 1 \checkmark \\ \frac{1}{1} \times r^1 = r^1 = 1 \checkmark$$

جمله اول $\frac{1}{1}$ است!

(1, VA)

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$$r/rar^2 = rar + ar^3 \Rightarrow rar^2 = rar + ar^3 \Rightarrow rar^2 - rar - ar^3 = 0 \\ r^2 - r + r = 0 \Rightarrow r = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-1 \pm \sqrt{1 - 4(-1)(1)}}{2(1)} = \frac{-1 \pm \sqrt{5}}{2} \\ \boxed{r = 3} \checkmark \leftarrow \text{معنی اول (باشیرم) برای (گزینه غلط است)}$$

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$$a_1 = r/a_2 = \frac{v}{r} \Rightarrow d = \hat{r} - a_1 = \frac{v}{r} - r = \frac{v - r^2}{r} = -\frac{1}{r} / a_2 = r + r \times (-\frac{1}{r}) = r - \frac{r}{r} = r - 1 \\ \frac{a}{r} / a_1 = r + (r \times -\frac{1}{r}) = r - \frac{r}{r} = \frac{1}{r} / a_{1r} = r + 1 \times (-\frac{1}{r}) = r - \frac{1}{r} = -1 / a_{1r+k}, a_{1+k} \\ a_{1r+k} \Rightarrow -1+k, \frac{1}{r}+k, \frac{a}{r}+k \Rightarrow (\frac{1}{r}+k) = (-1+k)(\frac{a}{r}+k) \Rightarrow k^2 + \frac{1}{r}k + \frac{1}{r} = -k - \frac{a}{r} + k^2 + \frac{a}{r} \\ k^2 - \frac{1}{r}k - \frac{a}{r} \Rightarrow (\frac{1}{r} - \frac{1}{r})k + \frac{1}{r} + \frac{a}{r} = 0 \Rightarrow \frac{1}{r}k + \frac{1}{r} = 0 \Rightarrow k = -\frac{1}{r} / a_{1r+k} = -\frac{1}{r} \\ a_{1r+k} = -\frac{1}{r} = -\frac{a}{a_{1r+k}} = \frac{-1}{r} = \frac{-1}{r} / q = \frac{(a_{1r+k})}{(a_{1r+k})} = \frac{-1}{r} = \frac{-1}{r} \\ q = \frac{a_{1r+k}}{a_{1r+k}} = \frac{1}{r}$$

برعکس!!

(1, VA)

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$$a = \Lambda / a_1^2 = \Lambda + d / a + q^2 = \Lambda + qd \Rightarrow d = a(q^2 - 1) \Rightarrow x = q^2 \Rightarrow x^2 - qx + 1 = 0 \\ x = \frac{q \pm \sqrt{q^2 - 4}}{2} = \frac{q \pm \sqrt{q^2 - 4}}{2} = \frac{1}{1} \Rightarrow q = 1 \Rightarrow q = 1 / a(1+d^2+q^2) = a(1+1+q^2) = 2a(1+q^2) \\ d = a(1+q^2) = 1(1-1) = 0 \Rightarrow d = 0 \checkmark$$

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$$(u^r - r)(u^r + r) = (rv)^r \rightarrow u^r + ru^r - r = ru^r \quad (r)$$

$$u^r - ru^r - r = 0 \rightarrow (u^r - r)(u^r + r) = 0 \rightarrow u = \pm r$$

$$\int u = r \rightarrow r, r, r \checkmark$$

$$\int u = -r \rightarrow r, -r, r \times$$

$$S_v = \frac{r \left(1 - \left(\frac{1}{r}\right)^v\right)}{\frac{1}{r}} = \frac{rv}{r}$$