

$$\underbrace{2(a+1)}_{2a+2} = 3a - 4 + a$$

$$14a + 14 = 4a - 4 \rightarrow 10a = -18 \rightarrow a = -1.8$$

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$$\sqrt{2-\sqrt{3}} + \frac{1}{\sqrt{2-\sqrt{3}}} + 2 + \sqrt{2+\sqrt{3}} + \frac{1}{\sqrt{2+\sqrt{3}}} + 2$$

$$\begin{aligned} 2\sqrt{2+\sqrt{3}} + 2\sqrt{2-\sqrt{3}} + 4 &\rightarrow 2(\sqrt{2+\sqrt{3}} + \sqrt{2-\sqrt{3}}) + 4 = \\ 2 \times \sqrt{3} + 2 \times \sqrt{3} + 2 \times ((2+\sqrt{3})(2-\sqrt{3})) &\rightarrow \leftarrow \text{کون در} \quad 2\sqrt{4} + 4 \\ 2+2+2=6 &\rightarrow \underline{2\sqrt{4} + 4} \end{aligned}$$

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$$\begin{aligned} 2f(n) - 3f(-n) &= (n^5 - n) \times 5 \\ 2f(-n) - 3f(n) &= (5n^5 + n) \times 3 \end{aligned} \Rightarrow \begin{aligned} 5f(n) - 9f(-n) &= 18n^5 - 2n \\ 9f(-n) - 9f(n) &= 12n^5 + 3n \\ \hline -5f(n) &= 20n^5 + n \end{aligned}$$

$$\underline{f(n) = -4n^5 - \frac{n}{5}}$$

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$$\begin{aligned} 2f(0) &= 3m - 1 \\ f(0) &= \frac{3m-1}{2} \end{aligned} \quad f(0) = \frac{3 \times \frac{11}{2} - 1}{2} = 4.75$$

$$m = -2 \rightarrow 4f(0) = 14 + 2m + 3m - 1 \rightarrow 4f(0) = 14 + 5m - 1$$

$$\begin{cases} f(0) = \frac{3m-1}{2} \\ f(0) = \frac{14+5m-1}{4} \end{cases} \quad \frac{3m-1}{2} = \frac{14+5m-1}{4} \rightarrow 4m-3 = 14+5m \rightarrow 4m-3=14+5m \rightarrow 4m-5m=14+3 \rightarrow -m=17 \rightarrow m=-17$$

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$$f(n) = an + b$$

$$an + b + \frac{a}{n} + b = \frac{2n^5 - 12n + 3}{n}$$

$$\frac{a}{n} + b + an + b = \left(\frac{2}{n^4} - \frac{12}{n} + 3 \right) n$$

$$2an + \frac{2a}{n} + 2b = 2n - 12 + \frac{3}{n} + \frac{2}{n} - 12 + 3n$$

$$a = 3$$

$$b = -2$$

$$f(n) = 3n - 2 \rightarrow f(-1) = -3 - 2 = -5$$

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$f(x) = (x-1)\sqrt{1-x} \rightarrow Df = (-\infty, 1]$ $g(x) = -\sqrt{(1-x)^3} \rightarrow \underbrace{ 1-x }_{+} \sqrt{1-x} \rightarrow Dg = (-\infty, 1]$ $g(x) = f(x)$	٦
$f(x) = x\sqrt{x} \rightarrow Df = x \geq 0$ $g(x) = \sqrt{x^3} \rightarrow x \sqrt{x} \rightarrow Dg = x \geq 0$ $f(x) = g(x)$	٧
$f(x) = [\sqrt{x} - [\sqrt{x}]] \rightarrow Df = \mathbb{R} - \mathbb{R}^+$ $g(x) = \sqrt{x - (x)} \rightarrow Dg \rightarrow \mathbb{R} - \mathbb{R}^+$ $f(x) = g(x)$	٨ هر دو انفرنشنه
الف) $\frac{(1, 3)}{(1, 1)} \rightarrow (1, 3) \rightarrow \frac{2+1}{2-1} = 3$ ب) $\frac{(2, 4)}{(2, 0)} \rightarrow \frac{3+3}{3-3} = \frac{6}{0}$ <u>نشان</u> ج) $f(0) \cdot g(\frac{1}{-1}) = 0$	٩
الف) $\{(1, 1), (0, 2), (\frac{1}{3}, 2), (-\frac{1}{3}, 2), (\frac{4}{3}, -1)\}$ ب) $\{(2, 1), (-2, 1), (0, 2), (3, -1), (-3, -1)\}$	١٠