

$$P(x) = \begin{cases} (a+1)(x+v) & ; x > 1 \xrightarrow{x=a} (a+1)(v) \rightarrow \underline{va + v - p(a)} \\ va + vx & ; x \leq 1 \xrightarrow{x=-v} va + v(-v) \rightarrow \underline{va - v = p(-v)} \end{cases}$$

★ $f'(a) = f'(-r) + \underline{a}$? $\leadsto \frac{1f_a + 1f}{V_a + V} = \frac{f_a}{V_a} - f + a \rightarrow 1a = -1A \rightarrow \boxed{a = -1, A}$ T.C

$$Q = ? \rightarrow -1,1 \text{ A} \quad \left| \quad \left(-\frac{9}{\omega} \right) \right.$$

$$P(x) = \frac{\sqrt{x}}{\sqrt{x}} + \frac{1}{\sqrt{x}} + \frac{2}{\sqrt{x}} \leadsto \frac{x+1+2\sqrt{x}}{\sqrt{x}} \rightarrow \frac{(\sqrt{x}+1)^2}{\sqrt{x}}$$

$\star f(\sqrt{p-\sqrt{q}}) + f(\sqrt{p+\sqrt{q}}) = ?$

Sol: $\sqrt{p-\sqrt{q}} + \frac{1}{\sqrt{p-\sqrt{q}}} + \sqrt{p+\sqrt{q}} + \frac{1}{\sqrt{p+\sqrt{q}}}$

$\Rightarrow \sqrt{p-\sqrt{q}} + \sqrt{p+\sqrt{q}} + \sqrt{p+\sqrt{q}} + \sqrt{p-\sqrt{q}} + f$

$\star \sqrt{p-\sqrt{q}} + \sqrt{p+\sqrt{q}} = \sqrt{p-\sqrt{q} + \sqrt{p+\sqrt{q}} + \sqrt{p+\sqrt{q}} + \sqrt{p-\sqrt{q}}} + f$

$\Rightarrow \sqrt{4p} + f = 2\sqrt{p} + f$

$$\begin{aligned} \text{v} \times \begin{cases} \cancel{v} P(x) - \cancel{v} P(-x) = f_x^v - x \\ \end{cases} & \Rightarrow \frac{-\Delta P(x)}{\Delta x} = \frac{\Delta x^v - v_x}{\Delta x} + \frac{v_x^v + v_x}{\Delta x} \rightarrow -\Delta P(x) = v_0 x^v + x \\ \text{v} \times \begin{cases} \cancel{v} P(-x) - \cancel{v} P(x) = f_x^v + x \\ \end{cases} & \\ \end{aligned}$$

$P(x) = -f x^v - \frac{x}{\Delta}$ r.e.

$$f(x) = ?$$

$$(x+y)P(x) - yP(x+y) = x^m - mx + y_{m-1} \xrightarrow{x=0} yP(0) = y_{m-1} \rightarrow P(0) = \frac{1}{\Delta m} \cdot \frac{\Delta}{\Delta}$$

$$\star \quad 9m - 12 = 10 + 2m \rightarrow 7m = 22 \rightarrow m = \frac{22}{7}$$

$$\star F(0) = \frac{W}{x} \times \frac{1A^9}{F} - \frac{1 \times 10}{F \times 10} \rightarrow \boxed{\frac{10}{F}} \sim 2$$

$$\star P(-1) + P(-1) = \frac{11}{-1} \rightarrow 2P(-1) = -11 \rightarrow P(-1) = -\frac{11}{2} \text{ r.e. } (ax+b)$$

فرم اولی $(3x-6)$ معادله: $x = -1$

$$\star f(x) + f\left(\frac{1}{x}\right) = \frac{ax}{x^2} - \frac{1}{x^2} + \frac{1}{x} \rightarrow \frac{a}{x}$$

$\star f(x) + f\left(\frac{1}{x}\right) = \left(\frac{1}{x^2}\right) - \left(\frac{1}{x}\right) + \left(\frac{1}{x}\right)$
 $\downarrow$
 $ax + b : \text{is } \frac{a}{x} + b : \text{is}$
 $\sim ax + b + \frac{a}{x} + b = \frac{1}{x^2} - \frac{1}{x} + \frac{1}{x}$
 $\downarrow$
 pb

$$\left. \begin{aligned} f(x) &= (x-1)\sqrt{1-x} \rightarrow x \leq 1 \\ g(x) &= -\sqrt{(1-x)^3} \end{aligned} \right\} f(x) = g(x)$$

$\begin{array}{c} + \\ | \\ - \end{array} \rightarrow (-\infty, 1]$
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مساوی اند
 جای گذاری

دارای دامنه یکسان

$$\left. \begin{aligned} f(x) &= x\sqrt{x} \rightarrow [0, +\infty) \\ g(x) &= \sqrt{x^3} \rightarrow \mathbb{R}^+ \cup \{0\} [0, +\infty) \end{aligned} \right\} f(x) = g(x)$$

مساوی دارند
 جایگذاری کنیم مساوی اند و مثل هم می آیند

$$\left. \begin{aligned} f(x) &= [\sqrt{x} - \sqrt{x}] \rightarrow [0, +\infty) \text{ دایره صفر} \rightarrow f(x) = 0 \\ g(x) &= \sqrt{x - 1x} \rightarrow g(x) = 0 \rightarrow [0, +\infty) \end{aligned} \right\} f(x) = g(x)$$

مساوی دارند

در اینجای دوم:

الف) $\left[\frac{p+q}{p-q} \right] (1) \rightarrow \frac{2+1}{2-1} = 3$ ر.ع

ب) $\left[\frac{p+q}{p-q} \right] (2) \rightarrow \frac{3+3}{3-3} = \text{تین}$ ر.ع

ج) $f(0)g(-1) = 0 / \text{صفر}$ ر.ع

الف) $g(x) = f(3x-1) \rightarrow g(x) = \left\{ (1, 1), (0, 4), \left(\frac{1}{3}, 5\right), \left(-\frac{1}{3}, 2\right), \left(\frac{4}{3}, -1\right) \right\}$ ر.ع

$3x-1=2 \rightarrow x=1 / 3x-1=-1 \rightarrow x=0 / 3x-1=0 \rightarrow x=\frac{1}{3} / 3x-1=-2 \rightarrow x=-\frac{1}{3} / 3x-1=3 \rightarrow x=\frac{4}{3}$ 1.

ب) $h(x) = f(|x|) \rightarrow h(x) = \left\{ (0, 5), (2, 1), (3, -1), (-3, -1), (-2, 1) \right\}$ ر.ع

$f(|x|) \rightarrow x = 2, 0, 3$
 $|x| = 2 \quad |x| = 3$

- جواب منفی غلط