

$$\frac{x^2 + 2x - 2}{x^2 - 1} = \frac{(x^2 - 1)(x + 2)}{x^2 - 1} = x + 2 \rightarrow c \quad (2)$$

روفا!

$$n = 1 \rightarrow \frac{a+2}{1+b} = 1+2=3 \rightarrow a-2b=1 \quad (2)$$

$$n = -1 \rightarrow \frac{-a+2}{-1+b} = -1+2=1 \rightarrow a+b=3$$

$$(a+b) - (a-2b) = 3-1 \rightarrow 3b=2 \rightarrow$$

$$b + c = \frac{2}{3} + 2 = \frac{8}{3}$$

ایفای درست نوشتن
ایفای!

$$g(x) = \frac{(x-1)(x+1)}{x^2 + ax + b} = \frac{x+1}{x-c} = f(x) \quad (2) \quad (4)$$

$$x^2 + ax + b = (x-1)^2 = x^2 - 2x + 1$$

$$a = -2, b = 1, c = 1 \quad a+b+c = -2+1+1=0$$

برای برابری دافند و حذف عامل صحت، باید صیغ و برابر

$$(x-1)(x-c) \quad c=1$$

$$f(x+1) = x(x-2)^2 \quad (2) \quad (4)$$

$$f(1-x) = -x(x+2)^2 \quad \boxed{-1x^2}$$

$$g(x) = x^2 - 2x + 1 + (-x^2 - 2x - 1) \Rightarrow g(x) = -4x$$

$$1-2x=3 \rightarrow -2x=2 \rightarrow x=-1 < 0 \rightarrow \sqrt{-1} + 2 = 1 \quad (4) \quad (2)$$

$$1-2x=-1 \rightarrow -2x=-2 \rightarrow x=1 > 0 \rightarrow \sqrt{1} = 1$$

$$f(-1) + f(1) = 2 + 1 = 3$$

$$f(x+\sqrt{x}) = x^2 + 3x$$

(2) (v)

$$x + \sqrt{x} = 4 \rightarrow x + \sqrt{x} - 4 = 0 \quad t = \sqrt{x} \quad t^2 + t - 4 = 0$$

$$(t+4)(t-1) = 0 \quad t = -4 \quad \sqrt{x} = 1 \rightarrow \boxed{x = 1}$$

$$\frac{(x)^2}{2 \times 4} + \frac{3(x)}{12} = 24x$$

$$(x-1)^2 + x-1 + (1-x)^2 + 1-x$$

$$x^2 - 3x^2 + 2x - 1 + (-x^2) + 1 - 2x + 3x^2 = 0$$

(2)

الف: بیفتن در دایره دایره است

$$D = \left[\frac{2a}{\varepsilon}, \frac{b}{\varepsilon} \right] = \{1\} \rightarrow \frac{2a}{\varepsilon} = 1 \rightarrow 2a = \varepsilon$$

$$\frac{b}{\varepsilon} = 1 \rightarrow b = \varepsilon$$

$$f(1) = k-1, g(1) = 3k$$

$$2f(1) - g(1) = k \Rightarrow 2(k-1) - 3k = k \rightarrow -k-2 = k$$

$$2a - \frac{b}{\varepsilon} - k = \varepsilon - \frac{\varepsilon}{\varepsilon} - (-1) = 4$$

$$k-1 \leftarrow$$

$$k = -1$$

$$D_{f \times g} = [-1, \infty) \cap (-\infty, m] = [-1, m] = [-1, \sqrt{v}]$$

$$\boxed{m = \sqrt{v}}$$

$$f(x) = \sqrt{v-x} + x = 2 + x \quad g(x) = \sqrt{f(x)+2} = \sqrt{4+x}$$

$$f(x) - g(x) = 4\sqrt{x} \rightarrow (2+x) - \sqrt{4+x} = 4\sqrt{x} \rightarrow$$

$$x = 4\sqrt{x} \rightarrow x = 16$$

$$m+x = \sqrt{v} + (4\sqrt{x} - 2) = 2 + 4\sqrt{x}$$

14, 5

بناسادات آل داود + آفرین :

"برای ثابت کردن $f(x) = x + 1$ ، در دو حالت فرض می‌کنیم:

الف، حالت $\varepsilon > 0$ $[x] > 0$ (یعنی $x > 0$) : $f(x) = x + 1$

اینجا $x > 0$ و $x > 0$: $x - 1 - x + 1 \geq 0 \rightarrow x \geq 0$

(۲) $x > 0$

ب، حالت $\varepsilon < 0$ (یعنی $x < 0$)

$$f(x) = x + 1$$

$$x + 1 - x + 1 \geq 0 \rightarrow x + 1 \geq 0 \rightarrow x \geq -1$$

اینجا $x < 0$ و $x \geq -1$: $-\frac{\varepsilon}{2} \leq x < 0$

مجموع عبارت‌ها : $D = \left[\frac{\varepsilon}{2}, +\infty \right) \cup \left(-\frac{\varepsilon}{2}, x < 0, x > 0 \right)$

$$y = \frac{3(1x^2 + 12x^2 + 4x + 1)}{(2x + 1)^4} = \frac{3(2x + 1)^3}{(2x + 1)^4} = \frac{3}{2x + 1}$$

$$\Rightarrow D_y = R - \left\{ -\frac{1}{2} \right\}$$

(۲) (۱, ۵)

ساده شده عبارت ؟

$$(x^2 + \varepsilon x + 1) = 0 \rightarrow x^2 + \varepsilon x + 1 = 0$$

$\div \varepsilon$

$$x^2 + x + \frac{1}{\varepsilon} = 0 \rightarrow \left(x + \frac{1}{2}\right)^2 = 0 \rightarrow x + \frac{1}{2} = 0 \rightarrow x = -\frac{1}{2}$$

$$D_y = R - \left\{ -\frac{1}{2} \right\}$$

$\div 3$

$$\rightarrow 2\varepsilon x^2 + 4\varepsilon x + 18x + 3 \quad 1x^2 + 12x^2 + 4x + 1$$

$$\begin{array}{r} 1x^2 + 12x^2 + 4x + 1 \quad | \quad 2\varepsilon x^2 + 4\varepsilon x + 18x + 3 \\ -1x^2 - 12x^2 - 4x \quad | \quad 2\varepsilon x^2 + 4\varepsilon x + 18x + 3 \\ \hline 18x + 3 \quad | \quad 2\varepsilon x^2 + 4\varepsilon x + 18x + 3 \\ -18x - 3 \quad | \quad 2\varepsilon x^2 + 4\varepsilon x + 18x + 3 \\ \hline 0 \end{array}$$

$$y = \frac{(2\varepsilon x^2 + 4\varepsilon x + 18x + 3)(2x + 1)}{2\varepsilon x^2 + 4\varepsilon x + 18x + 3}$$

$$y = 2x + 1$$