

(دھم B)

(طها جفری)

1) $f(x) = \sqrt{x|x|}$, $g(x) = x$

ب) $f(x) = \frac{(x^3+3)(x+1)+x+5}{x^2+4x+7}$, $g(x) = 1$

2) $f(x) = \frac{5 \sin^2 x - 4 \sin x}{2 \sin x - 3}$, $g(x) = 2 \sin x$

3) $f(x) = \frac{x}{|x|}$, $g(x) = \frac{|x|}{x}$

1) $x|x| \geq 0$, $x \geq 0 \rightarrow f(x)$
 $g(x) \rightarrow x \in \mathbb{R}$ X

ب) $f(x) = \frac{x^2+4x+7}{x^2+4x+7} = 1$ ✓

2) $2 \sin x (2 \sin x - 3) / (2 \sin x - 3) = 2 \sin x$ ✓

3) $f(x), g(x) \rightarrow x \in \mathbb{R}$ ✓

1) $f(x) = \left[\frac{x^2}{x^2+1} \right]$, $g(x) = [x - [x]]$ 2

ب) $f(x) = \frac{1}{[2x]}$, $g(x) = \frac{1}{2[x]}$

2) $f(x) = \frac{1}{\sqrt{x-|x|}}$, $g(x) = \frac{1}{\sqrt{|x|-x}}$

3) $f(x) = \begin{cases} \frac{x^3-x}{x-1} & ; x \neq 1 \\ x^2 & ; x = 1 \end{cases}$, $g(x) = x^2+x$

$$\text{civ} \rightarrow \left[\frac{n^r}{n^r+1} \right] = [n - [n]] = 0 \quad \checkmark$$

$$\hookrightarrow \frac{1}{[r \times 1/a]} \neq \frac{1}{r \times [0/a]} \quad \times$$

$$2 \rightarrow f(n) \rightarrow n - |n| > 0 \quad n > |n|$$

$$g(n) \rightarrow |n| - n > 0 \quad |n| > n$$

$$n \in \mathbb{R}^+ \quad \times$$

$$\hookrightarrow \text{if } n=1 \rightarrow n^r + n = r$$

$$\frac{n^r - n}{n-1} = n^r + n$$

$$n^r - n = (n^r + n)(n-1)$$

$$n^r - n = n^r - n \quad \checkmark$$

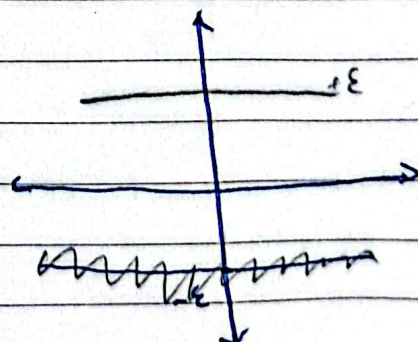
$$f(n) - g(n) + f(n) + g(n) = r n^r + r \quad \text{--- } \mu$$

$$f(n) = n^r + 1$$

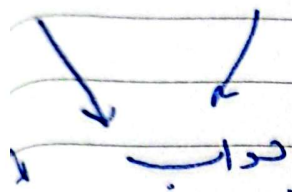
$$g(n) = n$$

$$f(n) - g(n) = n^r + 1 + r n^r - (n^r) = n^r + n^r + 1$$

$$n^r - (n^r - \varepsilon) = \varepsilon$$



$$g(n) = \frac{n-b}{(rn+a)(n-1)} = \frac{f(n)}{rx(n^2-mn+n)}$$



$$n-b = \frac{a}{r}n + \frac{r}{r}$$

$$am - bmr$$

$$rn^2 - rmn + rn = rn^2 - rn - d$$

$$\left(\frac{r}{r} \times \frac{r}{r} \right) - \left(-\frac{a}{r} \times -\frac{r}{r} \right)$$

$$\frac{r}{r} - 1 = -a/r$$

$$(m = \frac{r}{r})(n = -\frac{a}{a})$$

$$\frac{bn+r}{an+b} \rightarrow \text{cubitus}$$

$$\frac{b+r}{a+b} = \frac{r}{b} \quad b = \varepsilon$$

$$a+b=0 \quad \downarrow \quad (\varepsilon)$$

$$a = -\varepsilon \quad \downarrow \quad (-\varepsilon/a)$$

$$c = 0/4$$

$$\frac{ab}{c} = \frac{\varepsilon \times (-\frac{1}{\varepsilon})}{\frac{1}{\varepsilon}} = (-\varepsilon)$$

$$\frac{rg}{p+g} = \sum \dots$$

$$\rightarrow \sum$$

$$a = d = -1$$

$$ra - rb = 1 \rightarrow rb = \varepsilon \quad b = r$$

$$a - rb = c \quad 1 - r = -a = c$$

$$d + c = -1 + a = \varepsilon$$

~~مطلوب~~

$$\sqrt{-(n - \frac{1}{r})^2} \rightarrow \text{مطلوب}$$

مطلوب

$$a = n = \frac{1}{r}$$

$$b = 0$$

$$\frac{1}{r} + 0 = \frac{1}{r}$$

a

r

r

r

$$\rightarrow n \in \mathbb{R} - \{c\}$$

$$n - c$$

$$rm + a$$

$$(n^r + rn + b) \rightarrow \mathbb{R} - \{c\}$$

$$\downarrow$$

$$= (n - c)^r = n^r + c^r - rn c$$

$$-rn c = 4c \quad c = -r$$

$$c = -12$$

$$\text{if } n=0 \quad \frac{r}{w} = \frac{a}{b}$$

$$\text{if } n=1 \quad \frac{1}{r} = \frac{r+a}{v+b}$$

$$E + ra = v + b \quad E + ra - v - b = 0$$

$$\begin{cases} 2b - 3a = 0 \end{cases}$$

$$\begin{cases} E + ra - v - b = 0 \end{cases}$$

جواب $\rightarrow a = 7 \rightarrow b = 9$

$$a + b + c = 7 + 9 - 12 = 14$$