



$$f(n) = \frac{x^2 + \epsilon n + \omega}{x^2 + \epsilon n + \nu} \Rightarrow f(n) = \frac{(n+1)^2 + 1}{(n+1)^2 + 1} \Rightarrow f(\sqrt{x-1}) = \frac{(\sqrt{x-1}+1)^2 + 1}{(\sqrt{x-1}+1)^2 + 1} \quad (7)$$

$$\frac{(\sqrt{x})^2 + 1}{(\sqrt{x})^2 + 1} = \frac{1+1}{1+1} \Rightarrow \frac{\epsilon}{1} = \boxed{\frac{1}{1}} \text{ جواب}$$

(A)  $x^2 + ax + b = -x^2 + a$   $\Rightarrow x^2 + ax + b + x^2 - a = 0 \Rightarrow 2x^2 + (a+x)x + (b-a) = 0$

$\Rightarrow y = -x^2 + a \Rightarrow -\epsilon = -x^2(-1) + a \Rightarrow a = -x^2$   
 $f(-1) = (-1)^2 + a(-1) + b = -\epsilon \Rightarrow 1 - a + b = -\epsilon$   
 $x^2 + (-x^2 + x) + (1 - (-x^2)) = 0 \Rightarrow x^2 - \epsilon x - 1 = 0 \Rightarrow (x+1)(x-x-1) = 0$   
 $\Rightarrow x = -1, -\epsilon$   
 $b = -10$   
 $x^2 + (-x^2 + x) + (1 - (-x^2)) = 0 \Rightarrow x^2 - \epsilon x - 1 = 0$

$f = \{(x, a+b), (1, a), (-1, a-xb+1)\}$  جواب  $a=?$   
 $a+b = xa \Rightarrow a = b \Rightarrow f = \{(x, xa), (1, xa), (-1, -a+1)\}$   
 $xa = -a+1 \Rightarrow xa = 1 \Rightarrow a = \frac{1}{x}$  جواب

$$f(n) = \frac{\epsilon n^2 - an + c + 1}{bn + 1}$$

$\Rightarrow$   $\frac{p}{q}$   $\frac{r}{s}$   $\frac{t}{u}$

$a+b+c=?$

$$\frac{\epsilon n^2 - an + c + 1}{bn + 1} = n \Rightarrow \epsilon n^2 - an + c + 1 = bn^2 + n \Rightarrow \epsilon n^2 - an + c + 1 - bn^2 - n = 0$$

$$n^2(\epsilon - b) + n(-a - 1) + c + 1 = 0$$

- $\rightarrow \epsilon - b = 0 \Rightarrow b = \epsilon$
- $\rightarrow -a - 1 = 0 \Rightarrow a = -1$
- $\rightarrow c + 1 = 0 \Rightarrow c = -1$

$a+b+c = -1 + \epsilon - 1 = \boxed{0}$  جواب

کدام سوال است

$x = \frac{y_1}{\sqrt{1-y_1^2}} \quad x = \frac{y_2}{\sqrt{1-y_2^2}}$   
 $\frac{y_1}{\sqrt{1-y_1^2}} = \frac{y_2}{\sqrt{1-y_2^2}} \Rightarrow \frac{y_1^2}{1-y_1^2} = \frac{y_2^2}{1-y_2^2}$   
 $y_1^2 - y_1^2 y_2^2 = y_2^2 - y_1^2 y_2^2 \Rightarrow y_1^2 = y_2^2 \Rightarrow |y_1| = |y_2|$   
 $y_1 = y_2$  یا  $y_1 = -y_2$   
 که متناهی است