

Subject:

Date:

Sa Su Mo Tu We Th Fr

ایلا صبری - دهم دبیر - A - تالیف ۱۳۸۸

1.  $x = a \rightarrow a^2 + 2a = a^2 - 4 \rightarrow 2a + 4 = 0 \rightarrow a = -2$

2.  $g(x) = x + b = 3 \Rightarrow b = -1 \rightarrow f(x) = \frac{x+a}{x+1} = \frac{x-2}{x+1} = 3 \rightarrow a = 16, b = 11$

$f_{(1)} = \frac{1+11}{1+1}, \frac{1}{3}$

3. یعنی به ازای  $x = -1$  و  $x = 4$  مضرب منفرجه

$x = -1 \rightarrow -(1 - a + b) = 0$   
 $x = 4 \rightarrow 14 + 4a + b = 0$

$\Delta a + 3b = 0 \rightarrow a = -9, b = -1 \Rightarrow f_{(1)} = \frac{4(1)+1}{2(1)+9+1} = \frac{5}{12}, \frac{5}{14}$

4. پس یعنی به ازای  $x = -1$  مضرب منفرجه

$x = -1 \rightarrow -1 - a + b = 0$   
 $b - 1 - a = 0 \rightarrow b - a = 1 \rightarrow b = 1 + a$

$- \{ x^2 + ax + b \} \xrightarrow{\Delta > 0} a^2 + 4b = 0 \rightarrow a^2 + 4(1+a) = 0 \rightarrow a^2 + 4a + 4 = 0 \rightarrow (a+2)^2 = 0 \rightarrow a = -2 \rightarrow b = -1$

$\Delta < 0 \rightarrow x^2 - 4 < 0 \rightarrow (x-2)(x+2) < 0 \rightarrow \frac{-2 \ 2}{+ \ - \ - \ +} \Rightarrow (-2, 2)$

$x - \frac{1}{x} > 0 \rightarrow x > \frac{1}{x} \rightarrow x^2 > 1 \rightarrow x^2 > \frac{1}{2} \rightarrow x > \frac{1}{\sqrt{2}} \vee x < -\frac{1}{\sqrt{2}}$

$\Delta = f_m' - f_m = f_m(m-1) \rightarrow \frac{1}{m} \xrightarrow{\Delta < 0} [0, 1]$

$x = \frac{1}{x} \rightarrow x + k = x \rightarrow k = 0$   
 $2a - 1 = 0 \rightarrow a = \frac{1}{2}$   
 $a + k = \frac{1}{2}$

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$$x = \frac{-r}{r} \rightarrow xa + r, -r + b \rightarrow b + ra, +r \rightarrow ra, r \rightarrow a = r \quad -9$$

$$x = 1 \rightarrow \frac{a - r}{r + r} = 1 \rightarrow r + b \rightarrow b = -r \quad \Rightarrow a - b = r + r = 2r \quad -10$$

$$x = r \rightarrow ra^r + ra, r \rightarrow a^r + a - r = 0 \rightarrow (a + r)(a - 1) = 0 \rightarrow a = -r, 1 \quad -11$$