

$\Delta = -2$

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

2)  $f(x) = \frac{x+2}{x-2} = 1 + \frac{4}{x-2} \rightarrow \frac{x+2}{x-2} = 1 + \frac{4}{x-2}$

$d(x) = x + b = 3 \rightarrow b = -1$

3)  $\begin{cases} 2 - a + b = 0 \\ 3 + 5a + b = 0 \end{cases} \rightarrow \begin{cases} b = a - 2 \\ 3 + 5a + a - 2 = 0 \end{cases} \rightarrow \begin{cases} b = a - 2 \\ 4 + 6a = 0 \end{cases} \rightarrow \begin{cases} b = a - 2 \\ a = -\frac{2}{3} \end{cases}$

$f(x) = \frac{4x+1}{3x^2-4x-1}$

$f(x) = \frac{\sum(1) + 1}{3x^2 - 4x - 1} = \frac{2}{3x^2 - 4x - 1}$

4)  $K(x) = 4x^2 + ax + b = K(x+1)$   
 $4x^2 + ax + b = 4(x^2 + 2x + 1) \rightarrow -4(x^2 + 2x + 1)$   
 $-4x^2 - 8x - 4$   
 $-4x^2 + ax + b = -4x^2 - 8x - 4$   
 $ax + b = -8x - 4$   
 $a = -8, b = -4$

واقع و متخلف حسب لا عامل  
 دود نخبه خبايه رحيمه داشته باشند  
 پس  $\Delta$  و با ريشه مفاديت يلد داشته باشند

$m^2 - 4 < 0 \rightarrow -2 < m < 2$   
 $-\frac{1}{-2} < \frac{1}{m} < \frac{1}{2}$   
 $-\frac{1}{2} < m < 2$

5)  $\sum - \frac{1}{x^2} > 0 \rightarrow \frac{\sum 9x^2 - 1}{x^2} > 0$

$Df = 18x - (-\frac{2}{x^3})$

6)  $\Delta < 0 \rightarrow 4m^2 - 5m < 0$   
 $\sum m(m-1) < 0$   
 ريشه داشته باشند!  
 صفت تابع است

7)  $2ax - 1 = 0 \rightarrow a = \frac{1}{2}$   
 $g(x) = x(\frac{1}{2}) + 1 \rightarrow x(\frac{1}{2}) + 1 \rightarrow 1x = 0$

8)  $\frac{9x^2 - \sum}{9x^2 + 2} = \frac{9x^2 - 2}{9x^2 + 2} = 1 - \frac{4}{9x^2 + 2}$   
 $9x^2 - 2 = 2(9x^2 - 2) = 18x^2 - 4$   
 $9x^2 - 2 = 18x^2 - 4 \rightarrow 9x^2 = 2 \rightarrow x = \pm \sqrt{\frac{2}{9}} = \pm \frac{\sqrt{2}}{3}$

9)  $4 = 8 + 7a \rightarrow -7a = 2 \rightarrow a = -\frac{2}{7}$