نام و نام خانوادگی ، هماهنگی مدرسه - تکلیف شماره ۲۶ / کلاس دهم رشته A

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$$\frac{a \pm \sqrt{a^2 - 4b}}{2} = 1 , 4$$

$$\frac{a}{1} = 4 \rightsquigarrow a = 4 , \quad b = 3 \times 1 \Longrightarrow a + b = 4 + 3 = \boxed{7}$$

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x	-1		4
P	$-$ $\circ$ $+$	$\circ$	$-$

(-1) = ریشه مضاعف $\Rightarrow (x - 3n)^2 = 0$

$x = 3n = (-1) \rightarrow n = \frac{-1}{3}$

$(k-2)x + m - 1 = 0$

$4(k-2) + m - 1 = 0 \rightsquigarrow 4k + m = 9$

$5k + m - 11 < 0 \rightsquigarrow k - 2 < 0 \rightsquigarrow k < 2 \xrightarrow{k \in \mathbb{N}} \boxed{k = 1}$

$\Rightarrow m = 9 - 4k = \boxed{5}$

$\frac{m}{n} + k = \frac{-4}{\frac{-1}{3}} + 3 = \boxed{12}$

① $\frac{m}{n} + k = \frac{5}{\frac{-1}{3}} + 1 = \boxed{(-14)}$

② $(k-2)x + m - 1 = x + 4 \rightarrow \begin{cases} k - 2 = 1 \rightarrow k = 3 \\ m - 1 = (-4) \rightarrow m = (-3) \end{cases}$

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$$-\frac{1}{2}x^2 + 2x + 6 > \frac{7}{2} \rightsquigarrow -\frac{1}{2}x^2 + 2x + \frac{5}{2} > 0$$

$$\frac{-2 \pm \sqrt{4 + 5}}{-1} = -1 , 5$$

	$a = (-1)$		$b = 5$	
$-$	$\circ$	$+$	$\circ$	$-$
	1		1	

$b - a = 5 - (-1) = \boxed{6}$

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$x^4 - 2x^3 - x + 2 = x(x^3 - 1) - 2(x^3 - 1) = (x-1)(x+1)(x-2)$

$\frac{a+b}{2} = 2$

$P(2) = (2-1)(2+1)(2-2) = \boxed{-2}$

	-1		$a = 1$		$b = 3$	
$-$	$\circ$	$+$	$\circ$	$-$	$\circ$	$+$
	1		1		1	

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$(a-1)x^2 + (a-1)x + 1 < 0$

$a - 1 < 0 \rightarrow a < 1$ *1

$\Delta < 0 \rightarrow a^2 + 1 - 2a - 4a + 4 < 0 \rightarrow (a-5)(a-1) < 0$

	1		5	
$+$	$\circ$	$-$	$\circ$	$+$
	1		1	

$\rightarrow (1, 5)$ *2

$\Rightarrow (-\infty, 1) \cap (1, 5) = \emptyset$

a در مجموعه تهی تعلق دارد

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$A = \frac{m(m^2+m)}{m-2} > 0$

$m<0 \rightarrow m^2+m<0 \rightarrow m(m^2+m)>0$; $m-2<0$; $A<0$ *

$m>0 \rightarrow m^2+m>0 \rightarrow m(m^2+m)>0$; $m>2 \rightarrow m-2>0$

$m<2 \rightarrow m-2<0$; $m=2 \rightarrow A=0$ ق

$\boxed{m>2 \rightarrow A>0}$

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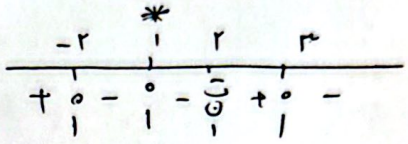
$\frac{(x-2)(x+2)(x-1)^2}{(x^2+x+1)(2-x)^2} \leq 0$



$[-2, 2) \cup [3, +\infty)$

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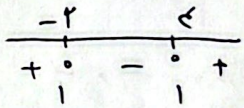
$\frac{2x^2-4x}{x^2+4} < 2 \rightarrow \frac{x^2-2x-8}{x^2+4} < 0$

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



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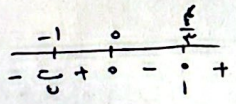
$\frac{x^3-4x}{x+1} < 0$



$\rightarrow (-\infty, -1) \cup (0, \frac{4}{3})$

$\Delta < 0$

$-1 < \frac{x^3-2x^2}{x+1} \rightarrow \frac{x^2-3x+1}{x+1} > 0 \rightarrow x+1 > 0 \rightarrow x > -1$

$\Rightarrow (0, \frac{4}{3})$

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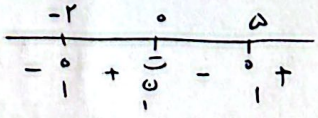
$\frac{x^2-3x+10}{x} \leq 0 \rightarrow \frac{(x-5)(x+2)}{x} \leq 0$



$\Rightarrow (-\infty, -2] \cup (0, 5]$