

۱۹۱۵ آزمون

$1, 3 \Rightarrow$ داخل علامت
باری دور

$(x-3)(x-1) = x^2 - 4x + 3 \rightarrow a=4, b=3$

$a+b=7$ (P)

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علامت جدول منفی

$(k-2)x+m-1)(x-3n)^2$

$x=1 \rightarrow -1-3n=0 \rightarrow 3n=-1 \rightarrow n=-\frac{1}{3}$

$k-2 < 0 \rightarrow k < 2 \quad k \in \mathbb{N} \rightarrow k=1$

$x=2 \rightarrow 2+m-1 \rightarrow m=0$

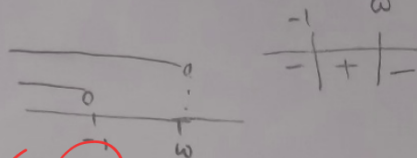
$\rightarrow \frac{m}{n} + k \rightarrow \frac{0}{-\frac{1}{3}} + 1 = -15 + 1 = -14$ دقت کن

(P)

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$\frac{1}{x} x^2 + 2x + 4 > \frac{4}{x} \rightarrow x^2 + 2x + 4 > 4 \rightarrow x^2 + 2x > 0 \rightarrow x(x+2) > 0$

~~$x(x+2) > 0$~~



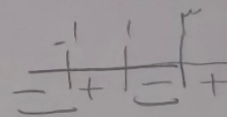
$(a, b) = (-2, 0) \rightarrow 4$

(P)

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

علامت جدول منفی

$\rightarrow x^2(x-2) - (x-2) \rightarrow (x^2-1)(x-2) \leq 0$



$x < -1 \rightarrow (1, 3) \rightarrow$ پس $= 2 \rightarrow \frac{1}{x^2} - 3 \frac{1}{x} + 3 = -3$

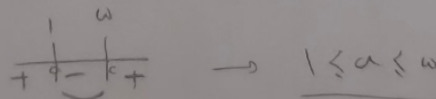
$x < 1$
 $x < 2$

(P)

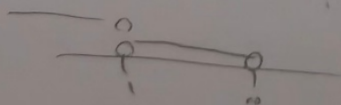
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$\Delta < 0 \rightarrow (a-1)^2 - 4(a-1) < 0 \rightarrow a^2 + 1 - 2a - 4a + 4 < 0 \rightarrow a^2 - 6a + 5 < 0$

$(a-1)(a-5) < 0$



$a-1 < 0$
 $a < 1$



$\rightarrow \emptyset$ (P)

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$m(m^w + m)$ *Quintic*
 $\frac{m^w}{m-r}$ $\rightarrow m^f + m^r \rightarrow \oplus$ *else*

$m(m(m$

$\rightarrow (-\infty, 0] \cup (r_2, +\infty)$

$\oplus \quad | \quad - \quad | \quad \oplus$

4,0

6

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

$\Delta < 0$

$\frac{-r}{+} \quad \frac{+r}{-} \quad \frac{+r}{-} \quad \frac{+r}{-}$

$[-r, r) \cup [r_2, +\infty)$

0

7

$\frac{rx^r - rx}{x^r + r} < 1 \rightarrow \frac{rx^r - rx - rx^r - 1}{x^r + r} < 0 \rightarrow \frac{x^r - rx - 1}{x^r + r} < 0$

$\frac{-r}{+} \quad \frac{+r}{-} \quad \frac{+r}{-}$

$\frac{(x-r)(x+r)}{x^r + r} < 0 \rightarrow b-a \rightarrow r(-r) < r$

0

8

$-1 < \frac{rx^r - rx}{x+1} < 0 \rightarrow \frac{rx^r - rx + x + 1}{x+1} < 0$

$\Delta < 0$

$\frac{rx^r - rx + x + 1}{x+1} < 0 \rightarrow \frac{x(x^r - r + 1) + x + 1}{x+1} < 0$

$\frac{rx^r - rx}{x+1} < 0 \rightarrow \frac{x(x^r - r)}{x+1} < 0$

$\frac{-1}{-} \quad \frac{+r}{+} \quad \frac{+r}{-}$

$\frac{0}{+} \quad \frac{+r}{-}$

0

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$\frac{x^r - 1}{x} \leq r \rightarrow \frac{x^r - rx - 1}{x} \leq 0 \rightarrow (x-r)(x+r)$

$\frac{-r}{+} \quad \frac{+r}{-} \quad \frac{+r}{-}$

$\Rightarrow (-\infty, -r] \cup (0, r)$

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$$n(n+1) = n^2 + n^1 = \underbrace{n^2(n^1+1)}_{\text{هذاتصبت}} \rightarrow \frac{n^2(n^1+1)}{n-2} > 0 \text{ (else)} \rightarrow n-2 > 0 \rightarrow n > 2$$