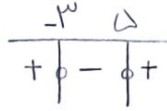


الف)

ب)



الف) $m^2 + 2m + 1 - 4m - 1 > 0$
 $m^2 - 2m - 1 > 0$
 $(m-2)(m+1) > 0$



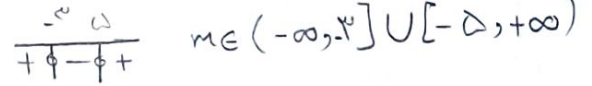
$m \in (-\infty, -1) \cup (2, +\infty)$

ب) $m^2 - 2m - 1 < 0$
 $(m-2)(m+1) = 0$
 $m=2 \quad m=-1$

ج) $m^2 - 2m - 1 < 0$



د) $m^2 - 2m - 1 \geq 0$



الف) $\frac{2(m+1)}{(m-2)} < 0$ $\frac{-1 \quad 2}{+ \quad - \quad +}$
 $\frac{10}{m-2} > 0 \quad m > 2$

$4(m^2 + 1 + 2m) - 4 \times 10(m-2) > 0$
 $m^2 - 8m + 21 > 0$
 $\Delta < 0 \Rightarrow$ صواباً، همیشه

$m \in \emptyset$

ب) $\frac{10}{m-2} < 0 \quad m < 2$ $\frac{c}{a} < 0 \Rightarrow \Delta > 0$ $\frac{2(m+1)}{m-2} < 0$ $\frac{-1 \quad 2}{+ \quad - \quad +}$
 $m \in (-1, 2)$

الف) $\frac{10}{m-2} < 0 \quad m < 2$ $\frac{c}{a} < 0 \Rightarrow \Delta > 0$ $m \in (-\infty, 2)$

ب) $\frac{2(m+1)}{2(m-2)} = -1 \quad m+1 = -2m+2$
 $3m = 1$
 $m = \frac{1}{3}$

$4 \sin^2 x - 4 \geq 0$

$\sin^2 x \geq 1$

$\sin x \geq 1 \quad \sin x \leq -1$

$\sin x = 1 \quad \sin x = -1$

$\Delta = 0 \Rightarrow x = \frac{2 \sin x}{\frac{4}{3}} \quad x > 0 \Rightarrow \sin x = 1$

$x = \frac{2}{\frac{4}{3}} = \frac{3}{2}$

$\frac{(x-1)(x+\frac{1}{3})(x+1)(x-\frac{5}{3})}{(1-x)(1+x)} = -x^2 + \frac{10}{3}x + \frac{5}{3}$

$x \neq 1, -1$

$\frac{-179}{39} - \frac{10}{3} = \frac{-289}{-4 \times 39} = \frac{289}{156}$

-v

$$\frac{w}{m} + y = \frac{-10}{m} + v$$

$$s^r - r\rho = \left(\frac{w}{r}\right)^r - r \times -\frac{1}{r} = \frac{2}{r} + 1 = \frac{1^w}{r}$$

$$w/m + y = -10 + vm$$

$$r_m = 14$$

$$m = r$$

$$\alpha\beta = r$$

$$r\alpha = \frac{\Lambda}{\beta}$$

$$\frac{\frac{\Lambda}{\beta} + \beta^\Delta}{\Delta\beta^r} = \frac{\beta^y + \Lambda}{\Delta\beta^w} = \frac{(\beta^r + r)(\beta^r - r\beta^r + r)}{\Delta\beta^w} = \frac{\cancel{\beta^r}(\beta^r + r)^r - 4\beta^r}{\beta^r \cancel{\Delta\beta^w}} = \frac{r\beta^r - 4\beta^r}{\beta^r} \quad -\Lambda$$

$$= 19$$

-9

$$x = r \Rightarrow y_r = r \times r + 10 = 1r$$

$$ra + rb + r = 1r$$

$$ra + rb = 10 \quad ya + yb = 1\Delta$$

$$x = r \Rightarrow y_r = r \times -2 + 10 = r$$

$$9a - 1b + r = r$$

$$9a - 1b = 0 \quad 1\Delta a = 1\Delta$$

$$a = 1 \quad b = 1$$

$$y_i = x^r + 1^w x + r \quad \text{موزونان} = \frac{-3}{r}$$

-10

$$rx^r + (m+1)x + m + y = x$$

$$rx^r + mx + m + y = 0$$

$$m^r - \Lambda m - r\Lambda = 0$$

$$(m-1r)(m+r) = 0$$

$$m = 1r \quad m = -r$$