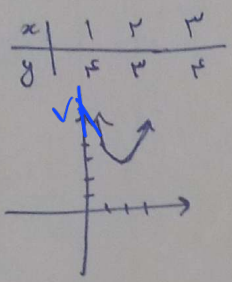


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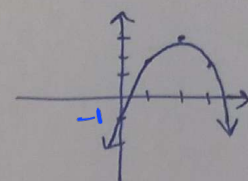
الف) $x_s = \frac{-b}{2a} = 2$



ب) $x_s = \frac{-b}{2a} = 2$



x	1	2	3
y	2	3	2



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$\Delta > 0$ (د)
 $m > 5$
 $m < -3$

$\Delta < 0$ (ج)
 $m^2 + 1 - 2m < 16$
 $m - 1 < 4$
 $m < 5$

$\Delta = 0$ (ب)
 $m^2 + 1 - 2m = 16$
 $(m - 1)^2 = 16$
 $m - 1 = 4$
 $m = 5$
 $m = -3$

الف) $\Delta > 0$
 $(m+1)^2 - 4 \times 2 \times (\frac{m+2}{2}) > 0$
 $m^2 + 1 + 2m - 4m - 16 > 0$
 $m^2 - 2m - 15 > 0$
 $(m-5)(m+3) > 0$
 $m < -3$
 $m > 5$

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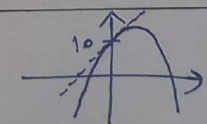
$P < 0$ $S < 0$ (ب)
 $\frac{10}{m-2} < 0$ $\frac{2m+2}{m-2} < 0$
 $m < 2$
 $-1 < m < 2$
 $m \in (-1, 2)$: اشتراک

الف) $\Delta > 0$ $P > 0$ $S < 0$
 $\frac{2m+2}{m-2} < 0$ $\frac{10}{m-2} > 0$
 $-1 < m < 2$ $m > 2$
 به ازای صیغ مقدار m معادله = اشتراکی ندارند
 محور x ها را در دو نقطه با
 طول منفی قطع نمی کنند

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$x_s = \frac{-b}{2a} = \frac{2m+2}{2(m-2)} = \frac{m+1}{m-2} = -2$
 $m+1 = -2m+4$
 $3m = 3$
 $m = 1$

$a < 0$
 $m-2 < 0$
 $m < 2$
 ۵



الف) $\Delta > 0$
 $-2(m+1) > 0$
 $m+1 < 0$
 $m < -1$
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 $\Delta > 0 \rightarrow \checkmark$ $P < 0 \rightarrow m < 2$
 $1 \cap 5 \Rightarrow m < -1$
 $m < 2$

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$\Delta > 0$
 $f \sin^2 \alpha - 4 > 0$
 $\sin^2 \alpha - 1 > 0$
 $-\cos^2 \alpha > 0$
 $\cos^2 \alpha < 0$
 $\cos \alpha = 0$
 $\alpha = \frac{\pi}{2} / \frac{3\pi}{2}$

① $\frac{1}{3}x^2 - 2x + \frac{10}{3} = 0$
 $\Delta = 4 - 4 = 0 \Rightarrow x = \frac{-b}{2a} = \frac{6}{\frac{2}{3}} = 9$
 ② $\frac{1}{3}x^2 + 2x + \frac{10}{3} = 0$
 $\Delta = 0 \Rightarrow x = \frac{-b}{2a} = -3 \notin (x > 0)$

$\sin \alpha = 1 \rightarrow \alpha = \frac{\pi}{2} \checkmark$
 $\sin \alpha = -1 \rightarrow \alpha = \frac{3\pi}{2} \times$

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$$y = \frac{(x-1)(x+1)(x+1)(x-2)}{(1-x)(1+x) - (x-1)} = - (x+1)(x-2) = -x^2 + x + 2 \quad (x \neq 1, -1)$$

بسطيني مقدار

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$$y_s = \frac{fac - b^r}{r^a} = \frac{-219}{-25} = \boxed{\frac{219}{25}}$$

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$$PS = \omega P + V$$

$$\frac{r(m+r)}{r} = \frac{d(-r) + Vm}{r}$$

$$r m^r + 9 = -10 + Vm$$

$$r m = 19$$

$$m = \frac{19}{r} \Rightarrow (r x^r - 9x - 1 = 0)^{+r}$$

$$r x^r - 9x - 1 = 0 \Rightarrow \alpha^r + \beta^r = 5 - 2p = \frac{9}{r} + 1 = \boxed{\frac{13}{r}}$$

$$s = \frac{r}{r} \quad p = \frac{-1}{r}$$

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$$\alpha\beta = r$$

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

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

$$\frac{r^r \alpha}{\omega \beta^r} + \frac{\beta^r}{\omega \beta^r} = \frac{r^r \alpha}{\omega \frac{r^r}{\alpha^r}} + \frac{\beta^r}{\omega} = \frac{1}{\omega} (\alpha^r + \beta^r) = \frac{1}{\omega} (5 - 2sp) = \frac{1}{\omega} (12 - 20)$$

$$= \frac{1}{\omega} \times 9 \omega = \boxed{14}$$

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8

$$C = r$$

$$ax^r + bx + r = rx + 10$$

$$ax^r + (b-r)x - 9 = 0$$

$$\begin{aligned} x=r & \rightarrow ra + rb - r - 9 = 0 \rightarrow \begin{cases} ra + b = 10 \\ ra + b = 0 \end{cases} \\ x=-r & \rightarrow -ra - rb + r - 9 = 0 \rightarrow \begin{cases} ra + b = 0 \\ ra + b = 0 \end{cases} \end{aligned}$$

$$\omega a = \omega$$

$$a = 1, b = ra = r$$

$$x_s = \frac{-b}{ra} = \boxed{\frac{-r}{r}}$$

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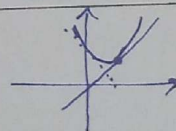
9

$$rx^r + (m+1)x + m + 9 = x$$

$$rx^r + mx + m + 9 = 0$$

$$\Delta = 0 \Rightarrow m^r - 4m - 18 = 0$$

$$m = 12 / -5 \Rightarrow \boxed{m = -5}$$



$$b < 0$$

$$m+1 < 0$$

$$m < -1$$

"

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