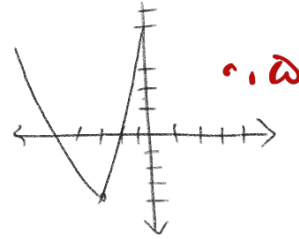


۱۷/۵

نام و نام خانوادگی پاسخنامه تشریحی تکلیف شماره کلاس

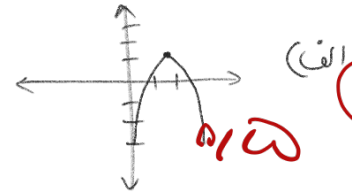
ext | $-\frac{b}{2a}$ $\Delta = 36 - 20 = 14$
 $-\frac{\Delta}{4a}$ $\Rightarrow \begin{cases} -3 \\ -4 \end{cases}$

(الف) نوع نقطه Min دار است



(ب)

ext | $\Delta = 14 - 12 = 2$
 $\Rightarrow \begin{cases} 1 \\ 0.5 \end{cases}$



(الف)

$a = 3$
 $\uparrow$
 $-x^2 + 4x - 3 = 0$
 $-(x-3)(x-1) = 0$
 $x = 1$

(ب) در نقاط اد ۳ قطع می‌کنند

$\{a | a \in \mathbb{R}, a < \frac{10}{\lambda}\}$

$\Delta > 0 \rightarrow$ جواب (الف)
 $\Delta = 0 \rightarrow$ جواب (ب)

$1 = 9 - \lambda a$
 $a = 1$
 $a - \lambda a = 0$
 $a = \lambda a$
 $a = \frac{9}{\lambda}$

$\Delta < 0 \rightarrow$ جواب ندارد

$-1 = 9 - \lambda a$
 $-10 = -\lambda a \rightarrow a = \frac{10}{\lambda}$

(الف) $x^2 - 2x - 1 = 0 \xrightarrow{+2} (x-2x+1) = 2 \rightarrow (x-1)^2 = 2 \rightarrow \begin{cases} x-1 = +\sqrt{2} \\ x-1 = -\sqrt{2} \end{cases}$
 $\begin{cases} x = \sqrt{2}+1 \\ x = -\sqrt{2}+1 \end{cases}$

(ب) $x^2 - x - 1 = 0 \xrightarrow{+\frac{1}{4}} (x^2 - x + \frac{1}{4}) = \frac{5}{4} \rightarrow (x - \frac{1}{2})^2 = \frac{5}{4} \rightarrow \begin{cases} x - \frac{1}{2} = \frac{\sqrt{5}}{2} \\ x - \frac{1}{2} = -\frac{\sqrt{5}}{2} \end{cases}$
 $\begin{cases} x = \frac{\sqrt{5}}{2} + \frac{1}{2} \\ x = -\frac{\sqrt{5}}{2} + \frac{1}{2} \end{cases}$

(الف) $x^2 - 2x - 1 = 0 \rightarrow \Delta = 4 + 4 = 8 \rightarrow x = \frac{-b \pm \sqrt{\Delta}}{2a} \rightarrow \begin{cases} x = \frac{2 + \sqrt{8}}{2} = \sqrt{2}+1 \\ x = \frac{2 - \sqrt{8}}{2} = 1 - \sqrt{2} \end{cases}$

(ب) $x^2 + x - 2 = 0 \rightarrow \Delta = 1 + 8 = 9 \rightarrow x = \frac{-b \pm \sqrt{\Delta}}{2a} \rightarrow \begin{cases} x = \frac{-1 + \sqrt{9}}{2} \\ x = \frac{-1 - \sqrt{9}}{2} \end{cases}$

$$\text{الف) } x^2 - 11x + 18 = 0 \rightarrow (x-2)(x-9) = 0 \quad \begin{cases} x-2=0 \rightarrow x=2 \\ x-9=0 \rightarrow x=9 \end{cases}$$

5

6

$$\text{ب) } x^2 + 13x - 14 = 0 \rightarrow (x+14)(x-1) = 0 \quad \begin{cases} x+14=0 \rightarrow x=-14 \\ x-1=0 \rightarrow x=1 \end{cases}$$

$$\text{الف) } 5x^2 - 14x + 7 = 0 \rightarrow x^2 - 14x + 7 = 0 \quad (x-5)(x-9) = 0 \quad \begin{cases} x=5 \\ x=9 \end{cases}$$

1, 10

$$\text{ب) } 3x^2 - 10x + 11 = 0 \rightarrow x^2 - 10x + 11 = 0 \quad (x+1)(x-11) = 0 \quad \begin{cases} x=1 \\ x=11 \end{cases}$$

$$\text{الف) } 2x^2 - 5x + 2 = 0 \rightarrow x^2 - 5x + 2 = 0 \quad (x-2)(x-3) = 0 \quad \begin{cases} x=2 \\ x=3 \end{cases} \quad 0, 12 \omega$$

$$\text{ب) } 2x^2 + 5x + 2 = 0 \rightarrow x^2 + 5x + 2 = 0 \quad (x+2)(x+3) = 0 \quad \begin{cases} x=-2 \\ x=-3 \end{cases} \quad 0, 12 \omega$$

$$\text{ج) } 2x^2 - 5x + 1 = 0 \rightarrow \Delta = 25 - 4 = 17 \quad \begin{cases} x = \frac{5 + \sqrt{17}}{4} \\ x = \frac{5 - \sqrt{17}}{4} \end{cases} \quad 0, 1 \omega$$

1, 10

$$\text{د) } 3x^2 + 7x + 4 = 0 \rightarrow \Delta = 49 - 48 = 1 \rightarrow \begin{cases} x = -1 \\ x = -4/3 \end{cases} \quad 0, 1 \omega$$

$$S = \frac{-b}{a} = 3 \quad P = \frac{c}{a} = -2$$

5

9

$$\text{الف) } 9 + x = 13$$

$$\text{ب) } 2V - 3x + 3x - 2 = 2V + 11 = 25$$

$$\text{الف) } \begin{pmatrix} 1 \\ 5 \end{pmatrix} + \begin{pmatrix} 9 \\ 2 \end{pmatrix} = \frac{11}{10} + \frac{18}{20} = 5V$$

1, 10

$$\text{ب) } \begin{pmatrix} 9 \\ 3 \end{pmatrix} - \begin{pmatrix} 1 \\ 2 \end{pmatrix} = \frac{8}{10} - \frac{1}{10} = 7/10$$

10