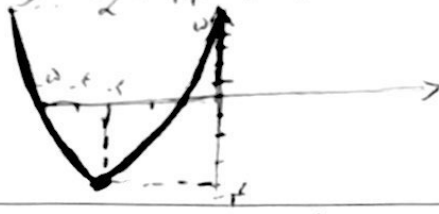


۱۴۷۵

نام و نام خانوادگی: کلاس: پاسخنامه تشریحی تکلیف شماره ۱

$$x = \frac{-b}{2a} = \frac{-9}{2} = -4.5$$

$$y = 9 + -11 + 5 = -4$$



۱- انت نقاط [۲] [۴]

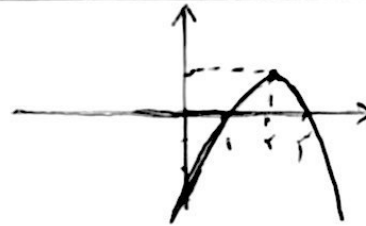
چون a مثبت است آن را Min میگوییم

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$$x = \frac{-b}{2a} = \frac{-4}{-2} = 2$$

$$y = -4 + 11 - 2 = 5$$

نقاط $\rightarrow$ ext



۲- Max. ۱۷۵

قاطع محور x و y را حاصل ؟

الف) $a = 2$
 $b = -2$
 $c = a$ (معین)
 $\Delta = (-2)^2 - 4 \times 2 \times a = 4 - 8a$
 $\Delta > 0 \rightarrow 4 - 8a > 0 \rightarrow 4 > 8a \rightarrow \frac{1}{2} > a$
 $\Delta = 0 \rightarrow 4 - 8a = 0 \rightarrow 4 = 8a \rightarrow a = \frac{1}{2}$
 $\Delta < 0 \rightarrow 4 - 8a < 0 \rightarrow 4 < 8a \rightarrow a > \frac{1}{2}$

۱) $\Delta \geq 0$
 $4 - 8a \geq 0$
 $4 \geq 8a$
 $a \leq \frac{1}{2}$

۳

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

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

۱) $x^2 - 2x - 1 = 0$
 $\Delta = 4 - 4 = 0$
 $x = \frac{2 \pm \sqrt{0}}{2} = 1$

۲) $x^2 + x - 4 = 0$
 $\Delta = 1 - 16 = -15$

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$$الف) x^2 - 11x + 28 = 0 \quad (x-v)(x-f) \begin{cases} x=v \\ x=f \end{cases}$$

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$$ب) x^2 + 2x - 28 = 0$$

$$(x+v)(x-f) \begin{cases} x=-v \\ x=+f \end{cases}$$

$$الف) \omega x^2 - 11x + v = 0 \rightarrow x^2 - 11x + 28 = 0 \rightarrow (x-v)(x-0) \begin{cases} x=v \\ x=0 \end{cases}$$

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$$ب) 2x^2 - 10x + v = 0 \rightarrow x^2 - 5x + 21 = 0 \rightarrow (x-v)(x-f)$$

$$x = \frac{v}{2}, \quad x = \frac{f}{2}$$

$$الف) \Delta = b^2 - 4ac = (-5)^2 - (2 \times 21) \rightarrow 25 - 42 = -17 \rightarrow x = -(-5) \pm \sqrt{17} = \frac{5 \pm \sqrt{17}}{2}$$

باقیان ۵۱

$$ب) \Delta = b^2 - 4ac = 10^2 - 4(2 \times 21) = 100 - 168 = -68$$

$$\Delta = b^2 - 4ac = 25 - 17 = 8$$

$$ب) \Delta = b^2 - 4ac = 10^2 - 4(2 \times 21) = 100 - 168 = -68$$

$$x = \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{-10 \pm \sqrt{-68}}{4}$$

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$$ج) \sqrt{2} \times (2 \times 21) = 42 - 168 = -126$$

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۱۱۵

$$s = -\frac{b}{a} \rightarrow \frac{11}{1} = 11$$

$$p = \frac{c}{a} \rightarrow \frac{28}{1} = 28$$

$$الف) s^2 - 2p = \left(\frac{11}{1}\right)^2 - 2(-1) = 121 + 2 = 123$$

۵۱۵

$$ب) s^2 - 2p = \left(\frac{11}{1}\right)^2 - 2\left(\frac{28}{1}\right)(-1) = \frac{121}{1} - 2\left(\frac{-28}{1}\right) \rightarrow \frac{121}{1} - \left(\frac{-56}{1}\right) = \frac{121}{1} + \frac{56}{1} = \frac{177}{1}$$

$$الف) \begin{pmatrix} 1 \\ 0 \end{pmatrix} + \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$$\begin{pmatrix} 1 \\ 0 \end{pmatrix} \rightarrow \begin{pmatrix} n \\ n \end{pmatrix} = \frac{n!}{k!(n-k)!} = \frac{v!}{0!(v-0)!} = \frac{v!}{0!1!} = \frac{v \times 4 \times 1}{0! \times 1 \times 1} = \frac{v \times 4}{1} = 4v$$

$$\begin{pmatrix} 9 \\ 2 \end{pmatrix} = \frac{9!}{2!7!} = \frac{9 \times 8 \times 7!}{2 \times 1 \times 7!} = 27$$

$$21 + 27 = 48$$

٢

$$\begin{pmatrix} 9 \\ 2 \end{pmatrix} = \frac{9!}{2!7!} = \frac{9 \times 8 \times 7!}{2 \times 1 \times 7!} = 27$$

$$124 - 76 = 48$$

$$\begin{pmatrix} n \\ r \end{pmatrix} = \frac{n!}{r!(n-r)!} = \frac{n \times (n-1) \times \dots \times (n-r+1)}{r \times (r-1) \times \dots \times 1} = \frac{n \times (n-1) \times \dots \times (n-r+1)}{r!}$$