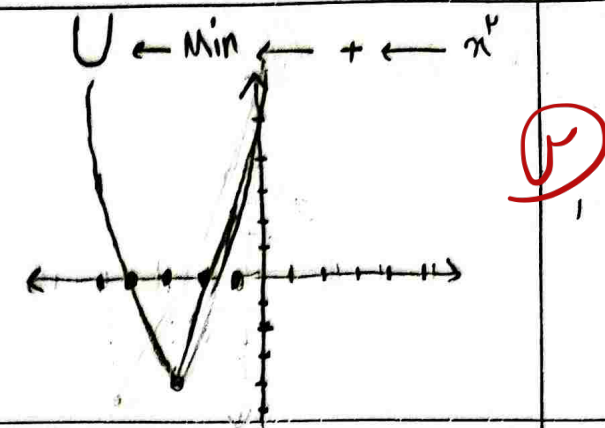


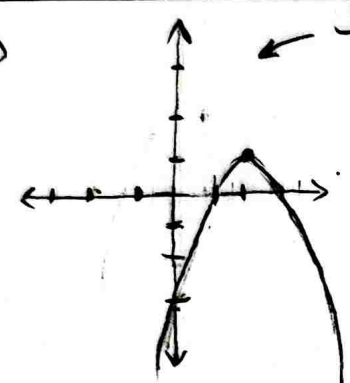
ext $\begin{cases} -\frac{b}{2a} \Rightarrow \frac{-4}{2} = -2 \\ \frac{-\Delta}{2a} \Rightarrow \frac{-4}{2} = -2 \end{cases} \Rightarrow y = x^2 + 4x + 5 \Rightarrow 9 + (-18) + 5 = -4$

مقطع مورد نیاز $\begin{cases} (n+2) & (n+3) \\ n = -2 & -3 \end{cases} \Rightarrow$



الف $y = -x^2 + 2x - 3 \Rightarrow$
 $\rightarrow \text{MOX} \rightarrow \wedge$
 ext $\begin{cases} -\frac{b}{2a} \Rightarrow \frac{-2}{-2} = 1 \\ \frac{-\Delta}{2a} \Rightarrow 1 \end{cases}$

نقطه و شعری بودن طول



ب $y = -x^2 + 2x - 3$
 $\Delta = 4 - 4(-1)(-3) = 4 - 12 = -8$
 $\frac{-2 \pm \sqrt{-8}}{-2} \Rightarrow \frac{-2 \pm 2\sqrt{2}i}{-2} = 1 \pm \sqrt{2}i$

الف $2x^2 - 3x + a = 0 \Rightarrow a < 1, \Delta < 0 \Rightarrow a < \frac{9}{4} \leftarrow \Delta a < 9 \leftarrow 0 < 4 - \Delta a \leftarrow 0 < \Delta \leftarrow$

ب $1, \Delta < 0 \Rightarrow a < \frac{9}{4} = a \leftarrow 9 = \Delta a \leftarrow 4 - \Delta a = 0 \leftarrow 0 = \Delta \leftarrow$

ج $1, \Delta < 0 \Rightarrow a < \frac{9}{4} < a \leftarrow 9 < \Delta a \leftarrow 4 - \Delta a < 0 \leftarrow \Delta < 0 \leftarrow$

د $a < 1, \Delta < 0 \Rightarrow a < \frac{9}{4} \leftarrow \Delta a < 9 \leftarrow 0 < 4 - \Delta a \leftarrow 0 < \Delta \leftarrow$

الف $x^2 - 2x - 1 + 2 = 2 \Rightarrow x^2 - 2x + 1 = 2 \Rightarrow (x-1)^2 = 2 \Rightarrow x-1 = \pm\sqrt{2} \Rightarrow x = \pm\sqrt{2} + 1$

ب $x^2 + x - 4 + \frac{1}{x} = \frac{14}{x} \Rightarrow x^2 + x + \frac{1}{x} = \frac{14}{x} \Rightarrow (x + \frac{1}{x})^2 = \frac{14}{x} \Rightarrow x + \frac{1}{x} = \pm\sqrt{\frac{14}{x}} \Rightarrow x = \pm\sqrt{\frac{14}{x}} - \frac{1}{x}$

الف $\Rightarrow x^2 - 2x - 1 \Rightarrow \Delta = 4 - (-4) = 8 \Rightarrow \frac{2 \pm \sqrt{8}}{2} = \frac{2 \pm 2\sqrt{2}}{2} \Rightarrow \frac{2(1 \pm \sqrt{2})}{2} = 1 \pm \sqrt{2}$

ب $\Rightarrow x^2 + x - 4 = 1 - (-14) = 14 \Rightarrow \frac{-1 \pm \sqrt{17}}{2}$

الف $x = 4, 7 \Rightarrow (x-4)(x-7) = 0$

ب $(x-4)(x+7) = 0 \Rightarrow x = -7, 4$

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الف $x^2 - 12x + 35 = 0 \Rightarrow (x-5)(x-7) \Rightarrow x = 5, 7$

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ب $x^2 - 10x + 21 = 0 \Rightarrow (x-3)(x-7) \Rightarrow x = 3, 7$

① ضرب ضرب x^2 به عبارت آخر (C) تبدیل کردن به جمله مشترک (D) تقسیم ریشه ها برضرب ضرب شده

الف $x^2 - 5x + 4 = 0 \Rightarrow (x-1)(x-4) \Rightarrow x = 1, 4$

ب $x^2 + 5x + 4 = 0 \Rightarrow (x+1)(x+4) \Rightarrow x = -1, -4$

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ج $x^2 - 40x + 1 = 0 \Rightarrow \frac{40 \pm \sqrt{1600}}{2}$

د $x^2 + 7x + 34 = 0 \Rightarrow \frac{-7 \pm \sqrt{49 - 136}}{2}$

الف $x^2 - 2x - 2 = 0 \Rightarrow \Delta = 4 - (-4) = 8 \Rightarrow \frac{1 \pm \sqrt{2}}{1} \Rightarrow x = 1 \pm \sqrt{2}$

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الف $9 - (x^2 + 4) = 13 \Rightarrow 9 - x^2 = 13$

ب $27 - (-18) = 45$

الف $\frac{9 \times 1}{1 \times 1} = 9 \Rightarrow \frac{9}{1} = 9$

ب $\frac{1 \times 1}{1 \times 1} = 1 \Rightarrow \frac{1}{1} = 1$