

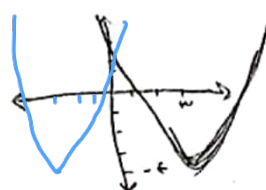
معون ضرب $\times$ مبسطة = min

$$\text{ext} \mid \begin{array}{c} -b \\ va \\ -\Delta \\ fa \end{array}$$

$$\frac{-4}{4} = -1$$

$$\Delta = b^2 - 4ac = 25 - 4 = 9$$

$$\checkmark \frac{-14}{2} = -7$$

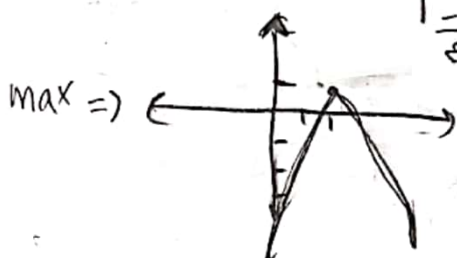


$$p_{xt} \left| \begin{array}{c} -b \\ p_a \\ -\Delta \\ \hline \epsilon a \end{array} \right.$$

$$\frac{1}{c} = \sqrt{\mu}$$

$$\Delta = b^p - \epsilon a c \Rightarrow 17 - 12 = 5 - \frac{5}{-1} = 10$$

✓ [2.17] الف = 1.78



$$-x^2 + 5x - 3 = 0 \quad \begin{cases} 1 \\ -5 \\ 3 \end{cases} \quad \frac{3}{-1} = +3$$

$$y'' - y' + a = 0 \quad - \omega$$

$$a = 1,0$$

$\Delta = b^p - \epsilon a c$
 $\Delta > 0 \rightarrow a - \epsilon a > 0$
 $\Delta = b^p - \epsilon a c$
 $\downarrow$
 $a - \epsilon \times r \times q$

الف: دلتا باي د مصيبت باي
 $a < \frac{9}{8}$
 دلتا باي د صفر باي

چ. د. متی باشد $\Delta = 9 - 4 \times 2 \times 2$ $\Rightarrow a$ می تواند هر چیزی که بزرگتر از ۲ باشد و قدر ۲ هم می تواند

$\Delta < 0$ $a > \frac{9}{4}$ $\Rightarrow$ د. نیا د. متی باشد پس a می تواند هر چیزی که کوچکتر از ۲ باشد

$a \geq 2$ $\Rightarrow a \geq 1$ $\Rightarrow a \geq 0$

$$x^5 - 2x - 1 = 0 \xrightarrow{-1} x^5 - 2x - 1 = -1 \rightarrow x^5 - 2x + 1 = (-x + 1) = 0$$

$$(x^2 - 2x + 1) - 1 - 1 < 0 \rightarrow (x-1)^2 = 2 \rightarrow x-1 = \pm\sqrt{2} \quad \mathcal{M} = 1$$

$$x < 1 + \sqrt{2}$$

$$x < 1 - \sqrt{2}$$

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

$$x^p - px - 1 = 0 \quad \Delta = b^2 - 4ac \rightarrow r + r = \sqrt{\Delta}$$

$$u = \frac{+v \pm \sqrt{\Delta}}{a}$$

$$H^p + H^{-p} = \Delta = b^p - \text{fac} \rightarrow 1 + |y| = \omega$$

$$b_{-}^{\dagger} \epsilon_{ac} = 1 - (f)\epsilon = 1 + 14 = 15$$

$$x = \frac{-1 \pm \sqrt{19}}{2}$$

$$\frac{1}{2} - \frac{1}{2} = 0$$

$$\frac{-1 \pm \sqrt{5}}{2} = \frac{\mu}{\nu}$$

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

$\downarrow$
-E x V

الف ٢

$$x^2 + 3x - 10 = 0 \quad (x-2)(x+5) = 0 \rightarrow \begin{cases} x=2 \\ x=-5 \end{cases}$$

$\downarrow$
-F x V

ب

$$\omega x^2 - 12x + 10 = 0 \quad \omega x^2 - 12x + 10 = 0 \Rightarrow (x+\omega)(x+10) \begin{cases} x = \frac{-\omega}{\omega} = -1 \\ x = \frac{-10}{\omega} = -10/\omega \end{cases}$$

الف ١, ٥

$$14x^2 - 1 \cdot x + 10 = 0 \quad x^2 - 1 \cdot x + 10 = 0 \Rightarrow (x-1)(x-10) \begin{cases} x = \frac{1}{2} = 1 \\ x = \frac{10}{2} = 10 \end{cases}$$

ب

$$2x^2 - \omega x + 10 = 0 \quad a+b+c=0 \quad 2+\omega-10=0 \Rightarrow \begin{cases} x=1 \\ x=\frac{c}{a} = \frac{10}{2} = 5 \end{cases}$$

الف ١, ٥, ٨

$$4x^2 + \omega x + 10 = 0 \quad a+c=b \quad 4+10=\omega \Rightarrow \begin{cases} x=-1 \\ x = -\frac{c}{a} = -\frac{10}{4} = -\frac{5}{2} \end{cases}$$

ب

$$4x^2 - \omega x + 10 = 0 \quad \Delta = b^2 - 4ac \quad 2\omega - 10 = 10 \quad x = \frac{-b \pm \sqrt{\Delta}}{2a} \Rightarrow \frac{\omega \pm \sqrt{10}}{4}$$

ب

$$8x^2 + 10x + 9 = 0 \quad \Delta = b^2 - 4ac \quad 100 - 324 = -124$$

ب

$$S = \frac{-b}{a} \quad P = \frac{c}{a} \quad S = \frac{10}{1} \quad P = \frac{-2}{1}$$

ب

$$S - 2P = 10 + 2 = 12$$

الف ٩

$$S - 10P = 20 + 10 = 30$$

ب

$$\binom{8}{1} + \binom{9}{1} = \frac{8!}{(8-1)! \times 1!} + \frac{9!}{(9-1)! \times 1!} = \frac{8!}{7!} + \frac{9!}{8!} = 8 + 9 = 17$$

الف ١, ٥, ٨

$$\binom{9}{1} - \binom{1}{1} = \frac{9!}{(9-1)! \times 1!} - \frac{1!}{(1-1)! \times 1!} = \frac{9!}{8!} - 1 = 9 - 1 = 8$$

ب