

Subject : ( )

نیمه فاصله دار

Date : .....

$$y = (a-1)x^r + x + r$$

$$\frac{-b}{2a} = \frac{-1}{2(a-1)} = \frac{-1}{2a-2}$$

①

$$\frac{-1}{2a-2} = r \Rightarrow 2a - 2 = -1$$

$$2a = 1 \Rightarrow a = \frac{1}{2}$$

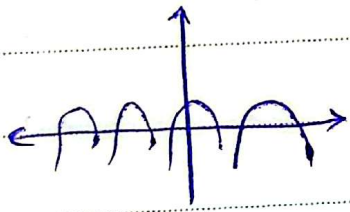
$$\left(\frac{1}{2} - 1\right)x^r + x + r = 0 \Rightarrow -\frac{1}{2}x^r + x + r = 0 \xrightarrow{x-\frac{1}{2}} x^r - \frac{1}{2}x - r = 0$$

$$(x - \frac{1}{2})(x + r) = 0 \Rightarrow \boxed{x = \frac{1}{2}} \text{ یا } x = -r$$

$$f(x) = mx^r - dx + m$$

$$f(x) \begin{array}{c|cc} x & x_1 & x_2 \\ \hline & - & + \end{array}$$

②



$$\Delta > 0 \quad a < 0$$

$$b^2 - 4ac > 0 \quad \boxed{m < 0}$$

$$\boxed{-\frac{d}{r} < m < 0}$$

$$\uparrow \Rightarrow$$

$$2d - 4mxm = 2d - 4m^2 > 0 \Rightarrow \frac{-d}{r} < m < \frac{d}{r}$$

$$(d + 2m)(d - 2m)$$

$$d = -2m \quad d = 2m$$

$$\Rightarrow m = -\frac{d}{2} \quad \frac{d}{2} = m$$

$$\begin{array}{c|cc} & -\frac{d}{2} & \frac{d}{2} \\ \hline & - & + \end{array}$$

m می تواند منفی و د می تواند مثبت باشد یا برعکس  
مثلاً  $-\frac{d}{2}$  و  $\frac{d}{2}$  می تواند مثبت باشد

$$x^r - 5x + p = 0 \Rightarrow x^r - x + \frac{p}{4} = 0 \Rightarrow \boxed{x^r - x + \frac{p}{4} = 0} \quad \text{③}$$

$$S = \frac{r - \sqrt{5}}{4} + \frac{r + \sqrt{5}}{4} = \frac{2r}{4} = r$$

اگر د و ا به هم مساوی باشد

$$p = \left(\frac{r - \sqrt{5}}{4}\right)\left(\frac{r + \sqrt{5}}{4}\right) = \frac{r^2 - 5}{16} = \frac{r}{16}$$

$$S = \frac{A}{4} = r$$

$$x^r - 11x + m + r = 0$$

m = ?

$$\alpha^r + \beta^r = S^r - r p$$

$$\alpha < \beta$$

$$\alpha^r + \beta^r = 1r$$

④

$$r\alpha^r + r\beta^r + \alpha^r - \beta^r = 1r$$

$$r(\alpha^r + \beta^r) + (\alpha + \beta)(\alpha - \beta)$$

$$= 1r$$

Arman

$$= 14 - 2 \times \frac{m+r}{4} \Rightarrow 14 - m - r = \boxed{14 - m}$$

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$$r(\alpha^r + \beta^r) + \underbrace{(\alpha + \beta)}_r (\alpha - \beta) = 1r$$

(\*)

$$\alpha - \beta = \frac{\sqrt{\Delta}}{|a|} \Rightarrow \frac{(-1)^r - r \times r \times (m+r)}{r} \Rightarrow \frac{\sqrt{r^2 - 4m}}{r}$$

$$1r - r^m + r\sqrt{r^2 - 4m} = 1r \Rightarrow 1r - r^m = -r\sqrt{r^2 - 4m}$$

نلاحظ ~~منه~~

~~منه~~  
m = 1

$$m^r - 14m + 4r = r^2 - 4m \Rightarrow m^r - 4m + 14 = 0 \quad (m-r)^r = 0$$

$$\boxed{m=r}$$

۵) در کدام بازار مالی معده

$\xrightarrow{(0/1)} \quad \textcircled{*} \Delta = \frac{A(0-r)^r + 9}{rA + 9 = \Delta \Rightarrow rA = -9 \Rightarrow A = -1}$

$$\Rightarrow y = -1 \underbrace{(x-2)^2 + 9}_{x^2 - 4x + 4 + 9} = -x^2 + 4x - 5 + 9$$

$$\Rightarrow -x^r + x^{\infty} + \delta = 1 \Rightarrow x^r - x^{\infty} - \delta = 0, \quad (x - \delta)(x + 1) = 0$$

$$- \textcircled{1} + \textcircled{1} -$$

$$x \in (-1, 1)$$

$$\alpha_{\infty}^T - V_{\infty} + q_{\infty} \beta = 0$$

$$\frac{1}{\alpha} + \frac{1}{\beta}$$

$\beta > 0$  ⑦

$$S = \frac{V}{\alpha} = \alpha + \beta$$

$\alpha, \beta$

$$p = \frac{q\beta}{\alpha} = \alpha \cdot \beta \Rightarrow \alpha^T \cdot \beta = q\beta \xrightarrow{\beta \neq 0} \alpha^T = q = \boxed{\alpha = \pm r}$$

$$\alpha = \mu \Rightarrow \frac{V}{\mu} = \mu + \beta \Rightarrow \beta = -\mu + \frac{V}{\frac{\mu}{1-\mu}} = \boxed{\frac{-\mu}{1-\mu}}$$

—Arman.

$$\alpha = -\gamma \Rightarrow \frac{\gamma}{-\gamma} = -\gamma + \beta \Rightarrow \beta = \gamma - \frac{\gamma}{\gamma} = \boxed{\frac{\gamma}{\gamma}} \quad \text{جواب 5}$$

2) Nikosia

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$$\alpha + \beta = \frac{1}{-r} + \frac{1}{\frac{r}{\mu}} \Rightarrow \frac{-1}{r} + \frac{\mu}{r} = \boxed{\frac{\mu - 1}{r}}$$

$$\alpha^r + m\alpha - r\mu = 0 \Rightarrow \alpha$$

Nikosia, B, \alpha \quad \textcircled{v}

$$\alpha^r - m\beta = 1$$

$$\alpha^r + m\alpha - r\mu = 0$$

$$\alpha^r = -m\alpha + r\mu$$

$$\alpha + \beta = -m$$

$$= \textcircled{-r} - (-\varepsilon)$$

$$= \textcircled{r}$$

$$\alpha + \beta = \frac{-m}{1}$$

$$\alpha, \beta = -r\mu$$

$$\Rightarrow \underbrace{-m\alpha - m\beta + r\mu = 1}_{-m(\alpha + \beta)} \Rightarrow m^r + r\mu - 1 = 0$$

$$\underbrace{-m(\alpha + \beta)}_{-m}$$

$$(m+0)(m-r) = 0$$

$$\downarrow \quad \downarrow$$

$$\textcircled{-\varepsilon} \quad \textcircled{r}$$

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$$\frac{-\Delta}{K_a} = 1 \quad -14 + Km^2 + KAm = KAm \quad \text{①}$$

$$Km^2 - KAm - 14 = 0, \quad m^2 - Km - 1 = 0, \quad m = \frac{K}{-2}$$

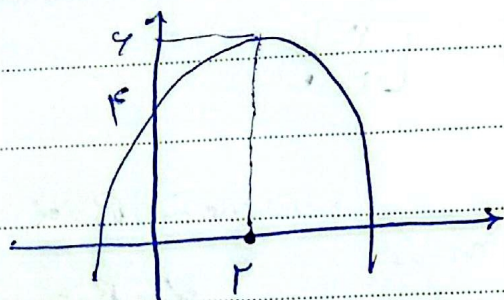
$$f(x) = -Kx^2 + Kx + 4 \quad \frac{\sqrt{b^2 - 4ac}}{2a} \quad Kx^2 + Kx - 14 = 0$$

$$(x + 4) / (x - 2) = 2$$

$$\frac{4}{-2} = 2, \quad \frac{2}{-2} = -1$$

$$\boxed{x = 1} \quad \text{or } x = 2$$

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⑨ معبر عن المعاملات

$$\frac{1}{\alpha} + \frac{1}{\beta}$$

$$y = A(x-h)^2 + y \Rightarrow y = A(x-r)^2 + y$$

$$(0, k) \Rightarrow y = A(0-r)^2 + y = k \Rightarrow kA + y = k$$

$$kA = -y \Rightarrow A = \frac{-y}{k} = \boxed{-\frac{1}{r}}$$

$$\Rightarrow y = -\frac{1}{r}(x-r)^2 + y = -\frac{1}{r}x^2 + 2x - r = 0$$

$$\xrightarrow{x-r} x^2 - 2x + r = 0$$

$$\frac{1}{\alpha} + \frac{1}{\beta} = \frac{\alpha + \beta}{\alpha\beta} = \frac{k}{-1} = \boxed{-\frac{1}{r}}$$

$$x^2 - (k\alpha + k)x + (r\alpha^2 + 4\alpha + r) = 0 \quad \alpha = r$$

$$\alpha + \beta = k\alpha + r$$

$$\Rightarrow \boxed{\beta = k\alpha + r}$$

$$\alpha \cdot \beta = r(k\alpha + r) = 1\alpha + k = r\alpha^2 + 4\alpha + r \quad m = \frac{4}{r}$$

$$r\alpha^2 - r\alpha - 1 = 0$$

$$\Rightarrow r\alpha^2 - r\alpha - 1 = 0 \xrightarrow{\div r} \alpha^2 - \alpha - \frac{1}{r} = 0$$

$$\alpha = 1 \Rightarrow x^2 - 1x + 1r = 0 \quad (x-r)(x-4) = 0$$

$$\alpha = -\frac{1}{r} \Rightarrow x^2 + \frac{1}{r}x + \frac{k}{r} = 0$$

$$\alpha = 1 \Rightarrow x^2 - 1x + 1r = 0$$

$$\alpha = -\frac{1}{r} \Rightarrow x^2 + \frac{1}{r}x + \frac{k}{r} = 0$$

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

$$x^2 - 1x + 1r = 0 \xrightarrow{\div r} x^2 - 1x + 1r = 0 = (x-r)(x-4)$$

$$\frac{+y}{r} = x + r$$

Arman