

(1)

مایل معروف لذت از:  $A \begin{vmatrix} 4 \\ -2 \end{vmatrix} \quad B \begin{vmatrix} 2 \\ 1 \end{vmatrix}$

$(B, A) \begin{vmatrix} 2+4 \\ -2+1 \end{vmatrix} = \begin{vmatrix} 6 \\ -1 \end{vmatrix}$   $m \begin{vmatrix} 3 \\ 1 \end{vmatrix}$   $m_{AB} = \frac{1 - (-2)}{2 - 4} = \frac{1}{-2} = -\frac{1}{2}$   
 $m \rightarrow +\frac{1}{2}$  معروف

$y - 1 = \frac{1}{2} (x - 4) \rightarrow y = \frac{x - 4 + 2}{2} \rightarrow 2y = x - 2 \rightarrow y = \frac{1}{2}x - 1$

$A \begin{vmatrix} 4 \\ 1 \end{vmatrix} \quad B \begin{vmatrix} -4 \\ 1 \end{vmatrix} \quad C \begin{vmatrix} -1 \\ 3 \end{vmatrix}$   $BC$  معبر  $BC$   $AH$

(2)

$BC \Rightarrow \sqrt{(4-1)^2 + (-4-3)^2} = \sqrt{16+49} = \sqrt{65}$

$m_{BC} \Rightarrow \frac{1-3}{-4-1} = \frac{2}{-5}$   $y_{BC} = -\frac{2}{5}x + b$   $\begin{vmatrix} 1 \\ 3 \end{vmatrix}$   $\frac{2}{5} + b = 3 \rightarrow b = \frac{13}{5}$

$y_{BC} = -\frac{2}{5}x + \frac{13}{5}$   $BC$  معبر  $m \rightarrow \frac{5}{2}$   $y = \frac{5}{2}x + b$   $\begin{vmatrix} 4 \\ 1 \end{vmatrix}$   $\frac{5}{2} + b = 1 \rightarrow b = -\frac{3}{2}$

$A$  معبر  $BC$  و لذت از  $A$ :  $y = \frac{5}{2}x - \frac{3}{2}$

$\frac{2}{5}x + \frac{13}{5} = \frac{5}{2}x - \frac{3}{2}$

$(\frac{2+5}{10})x = \frac{13-15}{10} \rightarrow x = \frac{-2}{10} = -\frac{1}{5}$

$y = \frac{5}{2} \times -\frac{1}{5} - \frac{3}{2} = -\frac{1}{2} - \frac{3}{2} = -2$

$H \begin{vmatrix} 4 \\ -1 \end{vmatrix}$

$A \begin{vmatrix} 4 \\ 1 \end{vmatrix}$

$AH = \sqrt{(4-4)^2 + (1-1)^2} = \sqrt{0+0} = 0$

$BC = \sqrt{65}$ ,  $AH = 0 \rightarrow BC - AH = \sqrt{65}$

$$ry - n = V, \quad ry = \alpha n + r$$

$$ry - n = V_s$$

$$ry - n = r_s, \quad \frac{\pm r}{\pm r} \rightarrow ry - n = s$$

$$M \leq \frac{1}{r} \rightarrow \frac{\alpha}{2} \leq \frac{1}{r} \rightarrow \alpha \leq r$$

$$\text{Laplace} \rightarrow \frac{-1+V}{\sqrt{\Delta}} = \frac{r}{\sqrt{\Delta}}$$

$$r = \frac{r}{\sqrt{\Delta}}$$

$$S = \pi r^2 \rightarrow S = \pi \left( \frac{r}{\sqrt{\Delta}} \right)^2 \rightarrow S = \pi \frac{r^2}{\Delta} \rightarrow S = \frac{rV}{\Delta} = \Delta, r$$



$$A \begin{vmatrix} r \\ r \end{vmatrix} \quad B \begin{vmatrix} r \\ 1 \end{vmatrix} \quad C \begin{vmatrix} -1 \\ -r \end{vmatrix}$$

$$M \begin{vmatrix} \frac{r+r}{r} = r \\ \frac{r+1}{r} = r \end{vmatrix} \quad M \begin{vmatrix} r \\ r \end{vmatrix}$$

$$H \rightarrow m_{AS}, \quad \frac{r-1}{r-r} = \frac{r}{-r} = -1$$

$$y = n + b \xrightarrow{A \begin{vmatrix} r \\ r \end{vmatrix}} r = -r + b \rightarrow b = 2r \rightarrow y = n + 2r$$

AB, AC, BC  
Clique

$$y = n + b \xrightarrow{C \begin{vmatrix} -1 \\ -r \end{vmatrix}} -r = -1 + b \rightarrow b = r - 1 \rightarrow y = n - r$$

$$H \rightarrow n - r = -n + 2r \rightarrow r = n = r \rightarrow n = \frac{V}{r} \rightarrow y = \frac{V}{r} - r = \frac{r}{r}$$

$$M \begin{vmatrix} r \\ r \end{vmatrix} \quad H \begin{vmatrix} V/r \\ r/r \end{vmatrix} \quad MH \rightarrow \sqrt{\left( r - \frac{V}{r} \right)^2 + \left( r - \frac{r}{r} \right)^2} = \sqrt{\frac{1}{2} + \frac{1}{2}} = \sqrt{\frac{r}{r}} = \sqrt{\frac{r}{r}}$$

$$(n+1)n - (r-m-r)y + 1 =, \quad (rm-r)n + (\Delta-m)y - Vs.$$

ms?   
 نه كافي

$$\text{Clique} \begin{vmatrix} 2 \\ 1 \end{vmatrix} = \frac{-m-1}{-rm+r}$$

$$\text{Clique} \begin{vmatrix} 2 \\ 1 \end{vmatrix} = \frac{-rm+r}{\Delta-m}$$

$$\frac{-m-1}{-rm+r} \times \frac{-rm+r}{\Delta-m} = -1 \rightarrow (rm^2 - rm + rm - r) = (1 \cdot m - rm^2 - r + rm)$$

$$\Delta m^2 - 1 rm + 11 =.$$

جايي م  
ان 2 حد برهم عرضي شون  
Δ < 0

$$AB: x+y=r \quad AC: y=rn-1, \quad BC: x+y=r \quad \frac{AM}{AH}$$

(4)

AC, AB, r

$$\begin{cases} ry=r-n \\ y=rn-1 \end{cases} \rightarrow \frac{r-n}{1} = rn-1 \rightarrow r-n=rn-1 \rightarrow n=1 \Rightarrow A \left| \begin{array}{c} 1 \\ 1 \end{array} \right|$$

BC, AB, r

$$\begin{cases} y=\frac{r-n}{r} \\ y=rn-1 \end{cases} \rightarrow rn-1=\frac{r-n}{r} \rightarrow 1-rn=\frac{r-n}{r} \rightarrow n=\frac{r}{r} \Rightarrow B \left| \begin{array}{c} \omega \\ -1 \end{array} \right|$$

BC, AC, r

$$\begin{cases} y=rn-1 \\ y=rn-1 \end{cases} \rightarrow rn-1=rn-1 \rightarrow n=\frac{\omega}{r} \quad C \left| \begin{array}{c} \frac{\omega}{r} \\ \frac{1}{r} \end{array} \right|$$

$$BC \rightarrow M \rightarrow \mu \left| \begin{array}{c} \frac{(\omega+\frac{\omega}{r})}{r} \\ \frac{(-1+\frac{1}{r})}{r} \end{array} \right| \Rightarrow M \left| \begin{array}{c} \frac{1}{r} \\ \frac{1}{r} \end{array} \right| \quad AM \rightarrow \sqrt{\frac{\frac{\omega}{r}}{1} + \frac{1}{1}} = \frac{\omega\sqrt{r}}{r}$$

$$AH \rightarrow m_{BC}y=rn \rightarrow m=1 \quad n_{AH}=1$$

$$A \left| \begin{array}{c} 1 \\ 1 \end{array} \right| \quad H \left| \begin{array}{c} r \\ r \end{array} \right|$$

$$AH \rightarrow \sqrt{r^2+r^2} = \sqrt{r}$$

$$y=n+b \xrightarrow{A \left| \begin{array}{c} 1 \\ 1 \end{array} \right|} b.s. \Rightarrow \begin{cases} rn=n \\ n=r \\ y=r \end{cases}$$

$$\frac{AM}{AH} = \frac{\frac{\omega\sqrt{r}}{r}}{\sqrt{r}} = \frac{\omega}{r}$$

$$M = -\frac{1}{r} \quad \text{titik } \circ \rightarrow \sqrt{r}$$

(5)

$$y = -\frac{1}{r}x + b \quad \frac{|y + \frac{1}{r}x - b|}{\sqrt{1 + (\frac{1}{r})^2}} \xrightarrow{1^\circ} \frac{b}{\frac{\sqrt{\omega}}{r}} = \sqrt{r} \rightarrow b = r\sqrt{\omega} \times \frac{\sqrt{\omega}}{r} = \omega$$

$$y = -\frac{1}{r}x + \omega$$

$$\xrightarrow{n.s.} y = \omega, \quad A \left| \begin{array}{c} 1 \\ \omega \end{array} \right|, \quad B \left| \begin{array}{c} \omega \\ \omega \end{array} \right|$$

$$\xrightarrow{y=0} -\frac{1}{r}x = -\omega \rightarrow x=1$$

$$\hookrightarrow \sqrt{1 + \omega^2} = \sqrt{1 + \omega^2} = \omega\sqrt{\omega}$$



①

$$\begin{aligned} my - \varepsilon n + r &\rightarrow y = \frac{r + \varepsilon m}{m} \rightarrow y = \frac{r}{m} + \varepsilon \\ y + mn &= r + \varepsilon \rightarrow y = r + \varepsilon - mn \rightarrow y = r(1-m) + \varepsilon \end{aligned} \left. \begin{array}{l} \text{فرض از معادله اول} \\ \text{محل برضو: } \left| \begin{array}{c} 0 \\ r \end{array} \right| \end{array} \right\}$$

$$\begin{aligned} y = \frac{r}{m} + \varepsilon &\rightarrow y = \frac{r}{m} + \varepsilon \quad \frac{r}{m} = \frac{r}{m} \rightarrow \frac{r}{m} = \frac{r}{m} \\ y = r(1-m) + \varepsilon &\rightarrow r(1-m) = \varepsilon \rightarrow r = \frac{\varepsilon}{1-m} \quad y = r(1-m) + \varepsilon \rightarrow y = \varepsilon \end{aligned}$$

$$\left| \begin{array}{c} -\frac{r}{1-m} \\ \cdot \end{array} \right| \quad \left| \begin{array}{c} -m \\ \cdot \end{array} \right|$$

②

محل برضو:  $y = 2x - 3$

$$\left| \begin{array}{c} 1 \\ -1 \end{array} \right| \quad \left| \begin{array}{c} 2 \\ -2 \end{array} \right| \quad \left| \begin{array}{c} 3 \\ -3 \end{array} \right|$$

$\xrightarrow{\lambda=1} y = -1$

$$y = 2x + b \xrightarrow{\left| \begin{array}{c} 3 \\ -3 \end{array} \right|} -3 = 2 + b \Rightarrow b = -5$$

$$\boxed{y = 2x - 5}$$

③

$$A \left| \begin{array}{c} 1 \\ r \end{array} \right| \quad y = x + a \quad A' \left| \begin{array}{c} 0 \\ b \end{array} \right| \quad rb - a = ?$$

$\xrightarrow{m=-1} y = -x + b \xrightarrow{A \left| \begin{array}{c} 1 \\ r \end{array} \right|} r = -1 + b \Rightarrow b = r + 1$

$$y = -x + r + 1$$

محل برضو  $\Rightarrow$   $x + a = -x + r \rightarrow x = -1$

$$y = r$$

$$A \left| \begin{array}{c} 1 \\ r \end{array} \right| \quad E \left| \begin{array}{c} -1 \\ r \end{array} \right| \quad A' \left| \begin{array}{c} a \\ b \end{array} \right| \rightarrow \begin{array}{l} a = -r \\ b = r \end{array} \rightarrow rb - a$$

$A', A, C, D$

$$r \times r - (-r) = 1 \quad \boxed{1}$$

$$E \left| \begin{array}{c} \frac{A + A'}{r} \\ \frac{y_A + y_{A'}}{r} \end{array} \right|$$