

AB خطے کے لیے $\rightarrow \frac{x-4}{2-4} = -v$

مختصات نقطہ AB کے لیے $\rightarrow \left(\frac{2+4}{2}, \frac{-4+1}{2} \right)$

مستویں AB $\rightarrow y-1 = \frac{1}{\sqrt{3}}(x-3)$

$\sqrt{3}y = x+2$

BC - AH

مختصات نقطہ H $\rightarrow \begin{cases} 3y + 4x = 5 \\ 4y - 3x = -5 \end{cases}$

$\Delta = 2$

فاصلہ A, H $= \sqrt{\left(2 + \frac{\sqrt{3}}{2}\right)^2 + \left(1 + \frac{1}{2}\right)^2} = \frac{1}{2} = 2$

نقطہ (A, H) کے لیے

$ax + 4y + 2 = 0$

$(-x + 2y - 1 = 0) \quad x-2$

$\alpha = 2$

فاصلہ دو خطے $= \frac{|14-2|}{\sqrt{2^2+16}}$

نصف قطر دایرہ $= \frac{2\sqrt{5}}{\Delta}$

مساحت دایرہ $= 12 \times \frac{4}{\Delta}$

مختصات نقطہ H $\rightarrow AH - AM$

مختصات نقطہ M $\rightarrow \left(\frac{4+y}{2}, \frac{2-y}{2} \right)$

فاصلہ $\frac{\sqrt{2}}{2} \sqrt{2} - \sqrt{2} = \frac{\sqrt{2}}{2}$

مختصات نقطہ H $\rightarrow \begin{cases} y+x=5 \\ y-x=-2 \end{cases}$

$x = \frac{\sqrt{2}}{2}, y = \frac{\sqrt{2}}{2}$

$H = \left(\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2} \right)$

$\frac{m+1}{2m-4} = \frac{5-m}{2m-2}$

$\Delta m^2 - 14m + 18 = 0$

$\Delta < 0$

م, c, a کے ساتھ مستویں

$AB = x + 2y = 2$
 $AC = 2y - 3x = -2$

$A(-\frac{1}{r}, -\frac{\delta}{r})$ $B(\delta, -1)$ $C(\frac{\delta}{r}, \frac{r}{r})$

نقطه A: $x = -\frac{1}{r}$ $y = \frac{\delta}{r}$

$AM = \frac{\sqrt{1+\delta^2}}{r}$ $AH = \frac{\sqrt{1+\delta^2}}{r} \cdot \sqrt{r}$

$\frac{AM}{AH} = \frac{\sqrt{1+\delta^2}}{\sqrt{1+\delta^2}} = \frac{\delta}{r}$

$m = -\frac{1}{r} \rightarrow ry + x - r = 0$

1,78

$|PC| = \sqrt{r^2} \rightarrow C = \pm a$

$C = \delta \rightarrow AB = \sqrt{1+\delta^2}$
 $C = -\delta \rightarrow AB = \sqrt{1+\delta^2}$

$ry = -x + \delta$ $B(\delta, 0)$

$AB = \sqrt{(\delta - (-\frac{1}{r}))^2 + (0 - \frac{\delta}{r})^2} = \frac{\sqrt{1+\delta^2}}{r}$

$C = \frac{\delta}{r}$

1,8

دو خط $y + mx = x + r$ $my - \epsilon x = 2m$

سه نقطه $A(\frac{m}{m-1}, 0)$ $B(\frac{r}{m-1}, 0)$ $C(1, r)$

$S_D = \frac{|m^2 - m + r|}{r(m-1)} \cdot \sqrt{1+\frac{1}{r^2}} = \frac{\delta}{r}$

$\frac{\delta}{r} = \frac{m^2 - m + r}{-r(m-1)}$

$m^2 + \epsilon m - 1 = 0$

حاصل ضرب قائم‌الزاویه $(-1) = m \cdot \epsilon$

1,20

$r = \frac{0 + r'}{r} \Rightarrow x' = r$

$-r = \frac{r + y'}{r} \Rightarrow y' = -2r$

$y = 2x - 12$

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

$mD' = r$ $y = 2x - 9$

قوسه نقطه و محور (r, r) $(r, -2)$

1,8

مدار خط $(1, r)$ $y = -x + 3$

مدار بر خط $y = x + 5$

$r(b - a) = \frac{r}{r} + r = 12$

$\frac{1+a}{r} = -1$ $\frac{r+b}{r} = r$

$a = -r$ $b = r$

$y = 5$
 $x = -1$

1,5