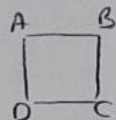


-1

A(-r, k)

B(+E, m)

$$a = -\frac{1}{r} = \frac{\Delta y}{\Delta x} = \frac{m-k}{\frac{E+r}{4}} \Rightarrow m-k = -\frac{r}{4}$$



$$AB = \sqrt{\Delta y^2 + \Delta x^2} = \sqrt{\left(\frac{E+r}{4}\right)^2 + \left(\frac{m-k}{4}\right)^2} = \sqrt{E\delta} \quad \text{cos} = \frac{(\sqrt{E\delta})^2}{E\delta}$$

A(-b, r) B(r, 1) C(x, y) D(-1-u, y+r)

-2

$$n_A + n_C = n_B + n_D \rightarrow -1 + u = r - 1 - u \rightarrow r_m = r \quad u = \frac{r}{2}$$

$$AB \perp BC \rightarrow m_{AB} \times m_{BC} = -1 \rightarrow \frac{1-r-r}{\frac{E+r}{r}} \times \frac{y-1}{\frac{r}{E}} = -1 \quad y-1 = \frac{r}{E} \times \frac{r}{r} = -r \rightarrow y = -1$$

$$AB = \sqrt{E^2 + r^2} = \delta \quad BC = \sqrt{\left(\frac{E}{r}\right)^2 + \left(\frac{r}{E}\right)^2} = \frac{\delta}{r} \rightarrow \frac{1}{\delta} = \left(\frac{1}{r} + \frac{1}{E}\right) \times r = \frac{1}{\delta}$$

$$r_m x + (m-1)y = r \quad \alpha = 45^\circ \rightarrow \tan 45^\circ = \sqrt{r} = a$$

-3

$$a = \frac{-r_m}{m^2-1} = \sqrt{r} \quad \sqrt{r} m^2 - \sqrt{r} = -r_m \rightarrow \sqrt{r} m^2 + r_m - \sqrt{r} = 0 \quad \alpha - \beta = \frac{\sqrt{\Delta}}{|a|}$$

$$\rightarrow \frac{\sqrt{r-r(-\sqrt{r})(\sqrt{r})}}{\sqrt{r}} \quad \frac{r}{\sqrt{r}} = \frac{E\sqrt{r}}{r}$$

A(1, 9) B(r, r) C(v, 11)

$$a_{BC} = \frac{\Delta y}{\Delta x} = \frac{11-r}{r} = r \rightarrow y = r_m - r \quad \text{cos} = \frac{1-r+9+r^2}{\sqrt{r^2+1}} = \frac{10}{\sqrt{a}} \quad \frac{r^2}{r} = \frac{11}{r} \quad B \begin{vmatrix} r \\ 1 \end{vmatrix}$$

-4

AB = y + r_m = v

AC = r_y - r_m = 1v

BC = r_y - v_m = -r

BH?

$$y = -r_m + v = \frac{v}{r} m - \frac{19}{r}$$

$$\frac{r^2}{r} = \frac{11}{r} \quad B \begin{vmatrix} r \\ 1 \end{vmatrix}$$

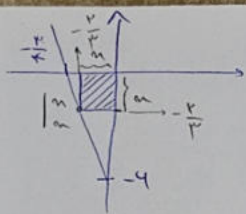
-5

∴ B cos

cos AC

$$\rightarrow \frac{1 - \frac{1}{4} + \frac{1}{4} - 1v}{\sqrt{14+9}} = \frac{r}{a} = \frac{r}{a}$$

∴ BH



$$\left| \frac{-r}{p} \right| = -4$$

$$a = \frac{\Delta y}{\Delta x} = \frac{-4-0}{0+\frac{r}{\varepsilon}} = \frac{-\frac{r}{\varepsilon}}{\frac{r}{\varepsilon}} = -1$$

$$y = -1x - 4$$

$$x = -1x - 4$$

$$2x = -4$$

$$x = -\frac{4}{2}$$

$$d = \sqrt{\left(\frac{r}{\varepsilon}\right)^2 + \left(\frac{r}{\varepsilon}\right)^2} = \sqrt{2 \times \frac{\varepsilon}{\varepsilon} \times \frac{r}{r}} = \frac{\sqrt{2}r}{r}$$

$$ay - x = a - 1$$

$$y - am = 1$$

$$d = a$$

دائرة

مستقيم

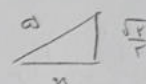
المسافة

من نقطة إلى

$$\frac{+1}{a} = \frac{a}{1} \rightarrow a^2 = 1 \quad a = \pm 1$$

$$a = 1 \quad y = m + 1 \quad \text{مسافة من نقطة إلى مستقيم}$$

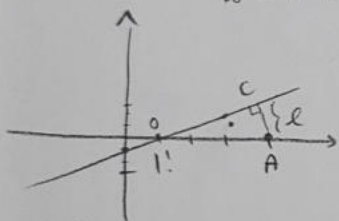
$$y - m = 0 \quad y - m - 1 = 0 \quad d = \frac{|1 - 0|}{\sqrt{1}} = \frac{\sqrt{1}}{1}$$



$$r_0 d^2 = m^2 + \frac{1}{r}$$

$$m^2 = \frac{\varepsilon r}{r} \rightarrow m = \frac{\sqrt{\varepsilon r}}{r}$$

$$S = \frac{\sqrt{r}}{r} \times \frac{\sqrt{\varepsilon r}}{r} = \frac{\sqrt{\varepsilon}}{r}$$



$$\frac{1}{r}m - \frac{1}{r} = y$$

$$d = \frac{|1 - 1|}{\sqrt{1}} = \frac{\sqrt{1}}{1}$$

$$m_{AC} = -r \rightarrow$$

$$y = -r(m - 2) \quad y = -rm + 1r$$

$$-rm + 1r = \frac{1}{r}m - \frac{1}{r} \quad \frac{r}{r} = \frac{1}{r}m \rightarrow m = r \rightarrow y = -1$$

$$\begin{vmatrix} r & 1 & 1 \\ -1 & 0 & 0 \\ 1 & 1 & 1 \end{vmatrix} = 0 + r \cdot 1 + 0 - 0 - r \cdot 1 = 0$$

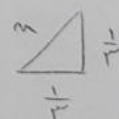
$$0 + r \cdot 1 + 0 - 0 - r \cdot 1 = 0 \quad x \frac{1}{r} = \frac{r}{r} = 1 \quad \boxed{1, r}$$

$$\left(-\frac{1}{r}, a\right) \quad \left(-\frac{1}{r}, b\right)$$

$$d = \sqrt{\left(\frac{1}{r} + \frac{1}{r}\right)^2 + (b-a)^2} = \sqrt{\frac{1}{r^2} + \frac{r}{r^2} = \frac{1}{r^2} = \frac{1}{r}}$$

$$a_0 = \sqrt{r} = \frac{b-a}{-\frac{1}{r} + \frac{1}{r}} = \frac{b-a}{\frac{1+r}{r}} = \sqrt{r} = 4(b-a) \quad \frac{\sqrt{r}}{4}$$

$$d = \frac{1}{r}$$



$$\boxed{m = \frac{\sqrt{r}}{r}}$$

$$n^2 = \left(\frac{1}{r}\right)^2 + \left(\frac{1}{r}\right)^2 = \frac{2}{r^2}$$

$$d = \sqrt{r^2 + 2^2} = d$$

$$(-r, -2) = A$$

$$m_{OA} = \frac{r}{r}$$

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

$$OA \perp L$$

$$L \perp L'$$

$$\rightarrow L' \parallel OA \rightarrow m_{L'} = \frac{r}{r} \rightarrow L' = y = \frac{r}{r}x + b$$

$$OA \perp L' \rightarrow d = \frac{|b|}{\sqrt{1 + \left(\frac{r}{r}\right)^2}} = \frac{b}{\sqrt{2}} = d \rightarrow b = \frac{d\sqrt{2}}{1}$$

$$\frac{1}{\sqrt{2}} = \frac{b}{\sqrt{2}} = \frac{r}{r} = d \rightarrow b = \frac{r}{r}$$

$$\Rightarrow L' = y = \frac{r}{r}x + \frac{r}{r}$$

$$L = y + r = -\frac{r}{r}(x + r) \rightarrow y = -\frac{r}{r}x - \frac{r}{r} \Rightarrow \frac{r}{r}x + \frac{r}{r} = -\frac{r}{r}x - \frac{r}{r} \Rightarrow x = -2$$

$$x + r = -4x - 4 \rightarrow 5x = -4 - r \rightarrow x = -\frac{4+r}{5} \rightarrow y = \frac{r}{r}x - 4 + \frac{r}{r} = -1 \rightarrow y = -1$$