

14,0

dy/dx

$$m = \frac{-r-r}{a-\varepsilon} = -\varepsilon \quad y-r = -\varepsilon x + 14$$

$$y = -\varepsilon x + 14$$

$$\frac{p}{b} = \frac{-a}{b} = -r \quad y-r = -r(x-\varepsilon)$$

$$y-r = -rx + r\varepsilon \rightarrow y = -rx + 1\varepsilon$$

$$m = \frac{-a}{b} = \frac{-1}{r} \quad \frac{p}{r} = r$$

$$y-r = r(x-\varepsilon) \rightarrow y = rx - 1$$

$$\tan_{(r)} = m = \sqrt{r} \quad y-r = \sqrt{r}(x-\varepsilon)$$

$$y = \sqrt{r}x - \varepsilon\sqrt{r} + r$$

$$y = \sqrt{r}x - r(r\sqrt{r}+1)$$

$$d = \sqrt{(ax)^2 + (ay)^2} = \sqrt{9 + 14} = 5$$

$$d = \frac{14 + 14 - 11}{\sqrt{9+14}} = \frac{17}{5} = 3.4$$

$$rx + ry - 1 = 0 \quad y = rx + ry - 1$$

$$rx + ry - 1 = 0 \quad \frac{-1-r}{r} = -1$$

$$rx + ry - 1 = 0 \quad d = \frac{|C-C'|}{\sqrt{a^2+b^2}} = \frac{\varepsilon}{\sqrt{14+49}} = \frac{\varepsilon}{\sqrt{63}}$$

$$\frac{\varepsilon}{\sqrt{63}} = \frac{r\sqrt{14}}{14}$$

$$|rx+ry-c| = |cx-ry+1|$$

$$rx+ry-r = rx-ry-1$$

$$ay-x=r$$

$$\frac{|rx+ry-c|}{\sqrt{\varepsilon+9}} = \frac{|rx-ry-1|}{\sqrt{1+\varepsilon}}$$

$$rx+ry-r = -rx+ry+1$$

$$2x+y = \varepsilon$$

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

$$y-rx=0 \rightarrow m' = \frac{+r}{1} = r$$

$$\tan \alpha = \left| \frac{-r-r}{1+(-r)(r)} \right| = 1$$

$$\alpha = 45^\circ \quad \beta = 145^\circ$$

$$AB = \sqrt{4+49} = \sqrt{53} = 7.28$$

$$x = \frac{-a+c}{r} = -1$$

$$y = \frac{\varepsilon r(-1)}{r} = -\varepsilon$$

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

$$y = \frac{-1c+r+1}{r} = \frac{-9}{r} = -c$$

$$S = \frac{1}{r} \left| x_A(y_B - y_C) + x_B(y_C - y_A) + x_C(y_A - y_B) \right|$$

$$\frac{1}{r} \left| r \left(\frac{-1}{r}(-c) \right) + -r(-1-1) + -1(-c) \right| =$$

$$\frac{1}{r} \times 9c = 4A$$

$$\begin{cases} x_1 = x - r \rightarrow x = x_1 + r \\ y_1 = y - r \rightarrow y = y_1 + r \end{cases}$$

$$y_1 + r = \frac{r(x_1 + r) + 1}{x_1 + r - r}$$

$$y_1 + r = \frac{rx_1 + r^2 + 1}{x_1} \rightarrow y_1 = \frac{rx_1 + r^2 + 1}{x_1} - r$$

$$y_1 = \frac{rx_1 + r^2 + 1 - rx_1}{x_1} = \frac{r^2 + 1}{x_1}$$

$$\begin{vmatrix} a & c \\ a' & c' \end{vmatrix} = \dots$$

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

$$\text{ا) } -y = \frac{rx+1}{x-r} \rightarrow y = \frac{-rx-1}{x-r} \quad (1)$$

$$\text{ب) } y = \frac{-rx-1}{x-r}$$

$$\begin{aligned} \text{ج) } x &= \frac{ry+1}{y-r} & \begin{cases} xry - rx = ry + 1 \\ -rx - 1 = ry - xry \\ -rx - 1 = y(r - x) \end{cases} \\ & & y = \frac{-rx-1}{r-x} \end{aligned}$$

$$\text{د) } -x = \frac{-ry+1}{-y-r} \rightarrow y = \frac{1-rx}{r+x}$$

$$\begin{aligned} \text{ه) } \begin{cases} x_1 = x - r \rightarrow x = x_1 + r \\ y_1 = y + r \rightarrow y = y_1 - r \end{cases} & \quad y_1 - r = \frac{r(x_1 + r) + 1}{x_1 + r - r} \\ & \quad y_1 = \frac{rx_1 + r^2 + 1}{x_1 - 1} \quad \leftarrow y_1 = \frac{rx_1 + r^2 + 1}{x_1 - 1} \end{aligned}$$

$$\begin{cases} rx + y = r \\ x - ry = 1 \\ -rx + 12y = 2 \end{cases}$$

$$12y = -1$$

$$y = -\frac{1}{12} \quad x - 2\left(-\frac{1}{12}\right) = 1$$

$$x = 1 - \frac{2}{12} \rightarrow x = \frac{10}{12}$$

$$\text{ب) } \frac{12}{-12} = \frac{12}{12} \quad \begin{vmatrix} a & b \\ a' & b' \end{vmatrix} = \begin{vmatrix} r & 1 \\ 1 & -2 \end{vmatrix} = -2 - 1 = -3$$

$$y = \frac{1}{-12} = -\frac{1}{12}$$

$$\begin{vmatrix} b & c \\ b' & c' \end{vmatrix} = \begin{vmatrix} 1 & r \\ -2 & 1 \end{vmatrix} = 1 - (-2r) = 1 + 2r$$