

(۱)

$$\text{الف) } m = \frac{y_A - y_B}{x_A - x_B} = \frac{0 - \varepsilon}{-1 - 1} = -\frac{1}{2} \quad y - 1 = -\frac{1}{2}(x - \varepsilon) \rightarrow y - 1 = -\frac{1}{2}x + \frac{1}{2} \rightarrow y = -\frac{1}{2}x + \frac{3}{2}$$

$$\text{ب) } 1y + 0x + c = -\frac{1}{2}x + \frac{3}{2} \quad \varepsilon + 1\varepsilon = 1 \rightarrow y = -\frac{1}{2}x + \frac{3}{2} \quad y = -\frac{1}{2}x + 1 \quad \varepsilon$$

$$\text{ج) } m = \frac{-1}{1} \rightarrow m' = 1 \quad y - 1 = 1(x - \varepsilon) \rightarrow y - 1 = x - \varepsilon \rightarrow y = x + 1 - \varepsilon$$

$$\text{د) } \tan \frac{\pi}{4} = \sqrt{1} \rightarrow y - 1 = \sqrt{1}(x - \varepsilon) = 0 \rightarrow y - 1 = \sqrt{1}x - \varepsilon \sqrt{1} \rightarrow y = \sqrt{1}x - \varepsilon \sqrt{1} + 1$$

$$\text{الف) د. } \frac{\sqrt{(x_A - x_B)^2 + (y_A - y_B)^2}}{\sqrt{1^2 + \varepsilon^2}} = \frac{\sqrt{1^2 + \varepsilon^2}}{\sqrt{1 + \varepsilon^2}} = 1$$

$$\text{ب) د. } \frac{|ax + by + c|}{\sqrt{a^2 + b^2}} = \frac{|1x + 1y - 1|}{\sqrt{1^2 + 1^2}} = \frac{1}{\sqrt{2}} = \frac{1}{\sqrt{2}}$$

$$\text{الف) } ax + by + \frac{c + c'}{r} \rightarrow 1x + 1y + \frac{-1 - 1}{1} \rightarrow \varepsilon x + 1y - 1 - \varepsilon$$

$$\text{ب) د. } \frac{|10 - 0|}{\sqrt{1^2 + 0^2}} = \frac{|11 - 1|}{\sqrt{1^2 + 1^2}} = \frac{1}{\sqrt{2}} \rightarrow \frac{1}{\sqrt{1 + 1}}$$

$$\frac{|ax + by - c|}{\sqrt{a^2 + b^2}} = \frac{|1x + 1y - 1|}{\sqrt{1^2 + 1^2}} \rightarrow \frac{|1x - 1y - 1|}{\sqrt{1 + 1}} = \frac{|1x + 1y - 1|}{\sqrt{1 + 1}}$$

$$1x - 1y - 1 = 1x + 1y - 1 \rightarrow x - 1y + 1 = 0$$

$$1x - 1y - 1 = -1x - 1y + 1 \rightarrow 2x + 2y - 2 = 0$$

$$\tan \alpha = \left| \frac{m - m'}{1 + mm'} \right| = \left| \frac{1 - 1}{1 - 1} \right| = \frac{0}{0} \rightarrow \varepsilon$$

$$y + 1x = 1 \quad m = -1 \quad y - 1x = 1 \rightarrow m = 1 \quad 1x - \varepsilon y = 1 \quad 1x = 1$$

$$\text{الف)} \sqrt{(k_A - k_B)(y_A - y_B)} = \sqrt{4 \times 10^4} = \sqrt{1} = 1.$$

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$$\text{ب)} \mu = \left| \frac{k_A + k_B}{y_A + y_B} \right| = \mu \left| \frac{\mu + 0}{\epsilon + 1} \right| = \mu(-51)$$

$$\text{الف)} G = \left| \frac{k_A + k_B + k_C}{y_A + y_B + y_C} \right| \rightarrow G \left| \begin{matrix} -\mu \\ -\mu \end{matrix} \right|$$

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$$\text{ب)} \left| \begin{matrix} -10 & -13 & 1 \\ -1 & \mu & 1 \\ \mu & 1 & 1 \end{matrix} \right| \rightarrow -10 - 13 - 1 - 9 - 29 + 1 = -94$$

$$\frac{1}{T} \times 99 = \epsilon_A$$

$$\text{الف)} \rightarrow -y \rightarrow -y = \frac{r_k + 1}{\epsilon_k - r} \rightarrow y = \frac{-r_k - 1}{\epsilon_k - r}$$

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$$\text{ب)} \rightarrow -r \rightarrow y = \frac{-r_k + 1}{-\epsilon_k - r}$$

$$\text{ج)} \rightarrow k = \frac{r_y + 1}{\epsilon_y - r} \rightarrow y = \frac{r_k + 1}{\epsilon_k - r}$$

$$\text{د)} \rightarrow -k = \frac{-r_y + 1}{-\epsilon_y - r} = k = \frac{r_y - 1}{-\epsilon_y - r} \rightarrow y = \frac{r_k - 1}{-\epsilon_k - r}$$

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$$\begin{aligned} \text{الف) } k' \cdot n - a &\rightarrow k' \cdot n' + r \\ y' \cdot g - \beta &\rightarrow y \cdot y' - \beta \rightarrow y \cdot \frac{r n' + 1}{k' - r} \cdot g - r = \frac{r(n' + r) + 1}{(k' + r) - r} \\ y = r = \frac{r n' + a}{k' - 1} &\Rightarrow y = \frac{r n' + a}{k' - 1} + r \rightarrow y = \frac{a n' + r}{k' - 1} \end{aligned}$$

$$\begin{aligned} \text{ب) } k - n + r &= y' + r = y' + r = \frac{r(n' + r) + 1}{k + r - r} = \frac{r n' + r + 1}{k'} \rightarrow y = \frac{r n' + r - 1}{k'} \\ y' = \frac{r n' + r - r n'}{k'} &\Rightarrow y = \frac{r}{k'} \end{aligned}$$

$$\begin{aligned} r k + \varepsilon y &= r \\ k - \omega y &= 1 \rightarrow k - r \rightarrow \frac{r k + \varepsilon y = r}{-r k + 1 \omega y = -r} \\ 19 y &= -1 \rightarrow y = -\frac{1}{19} \rightarrow k = \frac{1 \varepsilon}{19} \end{aligned}$$

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$$\begin{aligned} r k + \varepsilon y &= r \\ k - \omega y &= 1 \end{aligned} \quad k = -\frac{1 \varepsilon}{-19} \quad y = \frac{1}{-19} \rightarrow k = \frac{1 \varepsilon}{19} \quad y = -\frac{1}{19}$$