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SUB:

Laplace

المعادلات

$$m = \frac{r-p}{a-r} = -r$$

$$y+rs = r(n-a) \rightarrow y = -rn + 1a \quad (1) \text{ الف}$$

$$ry + rs = 1 \rightarrow m = \frac{-r}{r} = -1 \quad y - r = r(n-r) \rightarrow y = rn + 1r \quad (2) \text{ ب}$$

$$n+ry = 1 \rightarrow m = \frac{-1}{r} \rightarrow m = -\frac{1}{r} \quad y - r = r(n-r) \rightarrow y = rn - 1 \quad (3) \text{ ج}$$

$$\tan \frac{\pi}{4} = \sqrt{r} \rightarrow y - r = \sqrt{r}(n-r) \rightarrow y = \sqrt{r}n - r\sqrt{r} + r \quad (4) \text{ د}$$

$$d = \sqrt{(r+1)^2 + (r-1)^2} = \sqrt{9+16} = 5 \quad (5) \text{ هـ}$$

$$rn + ry = rs \quad d = \frac{|r+1r-r|}{\sqrt{9+16}} = \frac{0}{5} = 0 \quad (6) \text{ و}$$

$$\begin{cases} rn + ry - r = 0 \\ rn + ry - 1 = 0 \end{cases} \xrightarrow{\frac{r}{r}} rn + ry - a = 0 \quad (7) \text{ ز}$$

$$\begin{cases} rn + ry - r = 0 \\ rn + ry - 1 = 0 \end{cases} \quad d = \frac{|-r+r|}{\sqrt{r+9}} = \frac{r\sqrt{r}}{1r} \quad (8) \text{ ح}$$

$$\frac{|rn + ry - r|}{\sqrt{1r}} = \frac{|rn - ry - 1|}{\sqrt{1r}} \rightarrow rn + ry - r = rn - ry - 1 \quad (9) \text{ ط}$$

$$\downarrow$$

$$rn + ry - r = rn + ry + 1$$

$$\downarrow$$

$$y + 2r - r = 0$$

$$\downarrow$$

$$ay - n - r = 0$$



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$$\tan \alpha = \frac{-r-r}{1-g} \quad m = -r \quad m \leq r$$

$$\downarrow$$

$$\tan \alpha = \frac{D}{\Delta} = +1 \Rightarrow \alpha = 45^\circ$$

$$AB = \sqrt{(r+g)^2 + (-r-g)^2} = \sqrt{4r^2 + 4g^2} = 1. \quad \text{9 - الف}$$

$$M \begin{vmatrix} \frac{p-q}{r} = -1 \\ \frac{g-r}{r} = 1 \end{vmatrix} \rightarrow M \begin{vmatrix} -1 \\ 1 \end{vmatrix} \quad \text{ب.}$$

$$M \begin{vmatrix} \frac{-1-g-r+p}{r} = -r \\ \frac{-1+r+1}{r} = -r \end{vmatrix} \rightarrow M \begin{vmatrix} -r \\ -r \end{vmatrix} \quad \text{7 - الف}$$

$$S = \frac{1}{r} \begin{vmatrix} -1-g-r+p & -1-r \\ -r & r \\ r & 1 & 1 \end{vmatrix} \rightarrow S = \frac{1}{r} (-r \cdot -r - r - g - r - p + 1) \Rightarrow S = 1 \quad \text{ج.}$$

$$y = \frac{r_{n+1}}{-r_n - r} \leftarrow -y = \frac{r_{n+1}}{r_n + r} \quad \text{الف}$$

$$y = \frac{-r_{n+1}}{-r_n - r}$$

$$\text{لأن } \frac{r_{n+1}}{r_n + r} \text{، } m = \frac{r_{n+1}}{r_n + r} \rightarrow y = \frac{r_{n+1}}{r_n + r} \quad \text{ج.}$$

$$\text{لأن } \frac{-r_{n+1}}{-r_n - r} \text{، } -n = \frac{-r_{n+1}}{-r_n - r} \rightarrow n = \frac{-r_{n+1}}{r_n + r} \rightarrow y = \frac{-r_{n+1}}{r_n + r} \quad \text{د.}$$



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$$\begin{aligned} n' &= n - r \\ y' &= y + r \end{aligned} \rightarrow \begin{aligned} n' + r &= n \\ y' - r &= y \end{aligned} \Rightarrow y' - r = \frac{n' + r}{n' - 1} \rightarrow y' = \frac{n' + r}{n' - 1} \quad (\text{جواب 9})$$

$$\Rightarrow y = \frac{n' + r}{n' - 1}$$

$$\begin{aligned} n' &= n - r & n &= n' + r \\ y' &= y - r & y &= y' + r \end{aligned} \quad y' + r = \frac{r n' + r}{n'} \rightarrow y' = \frac{r}{n'} \rightarrow y = \frac{r}{n} \quad (\text{جواب 10})$$

$$\begin{cases} rn + ry = r \\ n - \omega y = 1 \end{cases} \xrightarrow{x=r} \begin{cases} rn + ry = r \\ -rn + \omega y = -r \end{cases} \quad (\text{جواب 10})$$

$$19y = -1 \rightarrow y = \frac{-1}{19}, \quad n = \frac{16}{19}$$

$$\begin{cases} rn + ry = r \\ n - \omega y = 1 \end{cases} \quad (\text{جواب 10})$$

$$n = -\frac{r+1}{-10-r} \quad y = \frac{r-r}{-10-r} = \frac{-1}{19}$$

$$\downarrow$$

$$n = \frac{16}{19}$$