

الف) $m \leq \frac{dy}{dx} \leq \frac{1-(1-y)}{1-y} = \frac{y}{1-y} \leq -1$ $y \leq -1$ $b \leq 1$ $y = -1$

ب) $1-y \leq b \leq 1$ $\Rightarrow 1-y \leq b \leq 1 \Rightarrow 1-y \leq 1$
 ۲) $1-y \leq 1 \Rightarrow y \leq 0$ $\Rightarrow y \leq 1$ $b \leq 1$

۳) $m \leq \tan \frac{\pi}{4} \leq \sqrt{2}$ $y = \sqrt{2} \tan \frac{\pi}{4} = \sqrt{2}$ $y \leq \sqrt{2}$ $b \leq \sqrt{2}$

الف) $\sqrt{1-(1-y)^2} = 1$ $\Rightarrow y = 1$ $b = 1$

الف) $1-y \leq b \leq 1$ $\Rightarrow 1-y \leq b \leq 1 \Rightarrow 1-y \leq 1$ $\Rightarrow y \leq 0$ $\Rightarrow y \leq 1$ $b \leq 1$

$\frac{|1-y-1|}{\sqrt{1-y^2}} = \frac{|1-y-1|}{\sqrt{1-y^2}}$

$1-y-1 \leq 1-y-1 \Rightarrow 0 \leq 1-y-1 \Rightarrow 0 \leq 1-y-1$

$y \leq 1$ $y \leq 1$ $\Rightarrow \frac{1-y}{1-y} = 1$ $\Rightarrow \frac{1-y}{1-y} = 1$ $\Rightarrow \frac{1-y}{1-y} = 1$

الف

$$\sqrt{(3-1.5)^2 + (5-1.5)^2} = \sqrt{10.5} = 3.24$$

ب

$$M \begin{vmatrix} \frac{3-1.5}{2} = -1 \\ \frac{5-1.5}{2} = 1 \end{vmatrix} \Rightarrow M \begin{vmatrix} -1 \\ 1 \end{vmatrix}$$

الف

$$M \begin{vmatrix} \frac{1+2+3}{3} = 2 \\ \frac{1+2+3}{3} = 2 \end{vmatrix} \Rightarrow M \begin{vmatrix} 2 \\ 2 \end{vmatrix}$$

ب

$$\frac{1}{2} \begin{vmatrix} 1 & 2 & 3 \\ 1 & 2 & 3 \\ 1 & 2 & 3 \end{vmatrix} = \frac{1}{2} (1 \cdot 2 \cdot 3 + 1 \cdot 2 \cdot 3 + 1 \cdot 2 \cdot 3) = \frac{1}{2} \cdot 18 = 9$$

الف

$$-y = \frac{2n+1}{2n-3} \Rightarrow y = \frac{1-2n}{2n-3}$$

ب

$$y = \frac{2n+1}{2n-3}$$

2)

$$n = \frac{2y+1}{2y-3} \Rightarrow y = \frac{2n+1}{2n-3}$$

3)

$$-n = \frac{2y+1}{2y-3} \Rightarrow n = \frac{2y+1}{2y-3} \Rightarrow y = \frac{2n+1}{2n-3}$$

الف

$$y' = \frac{2n'+1}{n'-1} \Rightarrow y' = \frac{2n'+1}{n'-1}$$

$$\begin{aligned} n' &\leq n-1 \\ y' &\leq y+1 \end{aligned}$$

ب

$$y' = \frac{2n'+1}{n'}$$

$$\begin{aligned} n' &\leq n-1 \\ y' &\leq y-1 \end{aligned}$$

الف

$$\begin{cases} 2n+1 \leq y \\ n-1 \leq y \end{cases} \xrightarrow{2-1} \begin{cases} 2n+1 \leq y \\ n-1 \leq y \end{cases} \Rightarrow y \geq \frac{1}{19} \Rightarrow n = \frac{1}{19}$$

ب

$$n = \frac{1-(-1)}{-10-1} = \frac{-2}{-11} = \frac{2}{11} \quad y = \frac{2-1}{-10-1} = \frac{-1}{-11} = \frac{1}{11}$$