(Q).2) Calculate $\begin{vmatrix} \sin\theta & -\cos\theta \\ \cos\theta & \sin\theta \end{vmatrix}$.

$$\begin{vmatrix} \sin\theta & -\cos\theta \\ \cos\theta & \sin\theta \end{vmatrix}.$$

$$= \sin^2\theta - (-\cos^2\theta)$$

$$= \sin^2\theta + \cos^2\theta$$

$$= 1$$