

$$\boxed{47} \quad \cos t \sin t = \sin t \implies \cos t \sin t - \sin t = 0 \implies \sin t(\cos t - 1) = 0 \implies \sin t = 0 \text{ or } \cos t = 1$$

Since $t_R = \sin^{-1} 0 = \cos^{-1} 1 = 0$ and the angle is quadrantal, $t = 0, \pm\pi, \pm 2\pi, \dots$

$$t = \pi n \text{ or } t = 180^\circ n \text{ for } n = 0, \pm 1, \pm 2, \pm 3, \dots$$