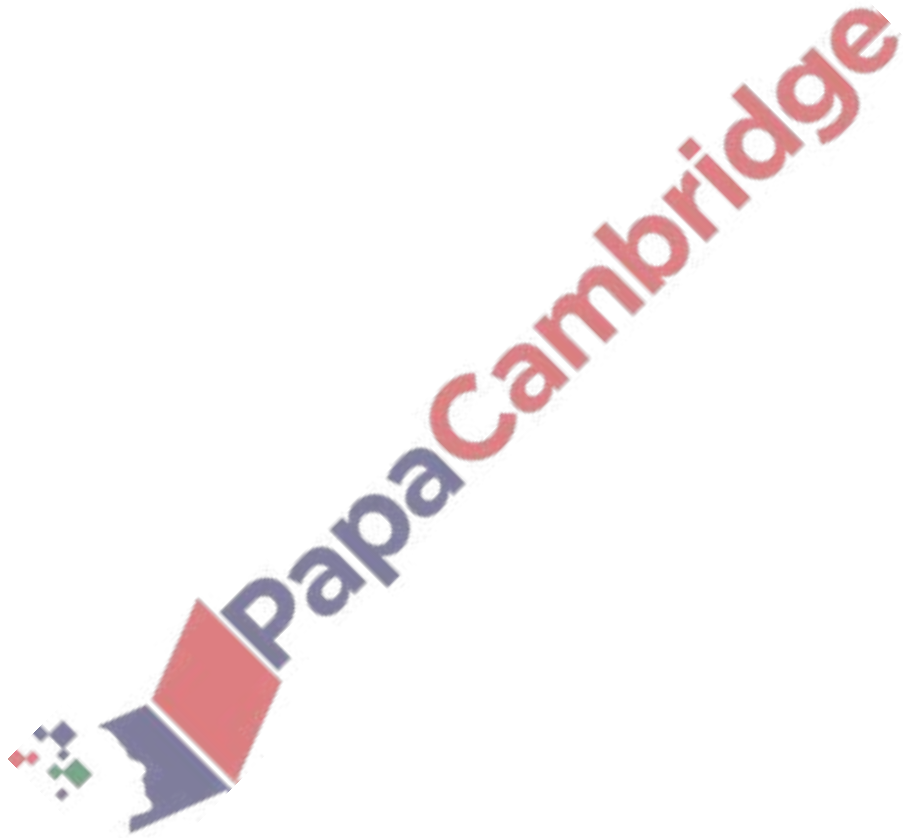


(a) By first obtaining a quadratic equation in $\cos \theta$, solve the equation

$$\tan \theta \sin \theta = 1$$

for $0^\circ < \theta < 360^\circ$.

[5]



(b) Show that $\frac{\tan \theta}{\sin \theta} - \frac{\sin \theta}{\tan \theta} \equiv \tan \theta \sin \theta$.

[3]

