

4 **(a)** Show that $\frac{\cos \theta}{1 - \sin \theta} - \frac{1}{\cos \theta} \equiv \tan \theta$ (where $\theta \neq 90n^\circ$ for any odd integer n). **[3]**

(b) Hence solve the equation $\frac{\cos 3x}{1 - \sin 3x} - \frac{1}{\cos 3x} = 1$ for $0 \leq x \leq 90^\circ$. **[4]**