5 **(a)** Show that the equation $2\cos x \tan^2 x = 3(1+\cos x)$ can be expressed in the form

$5\cos^2 x + 3\cos x - 2 = 0$. **[3]**

(b) In this question you must show detailed reasoning.

Hence solve the equation

$2\cos 3\theta \tan^2 3\theta = 3(1+\cos 3\theta)$,

giving all values of θ between $0°$ and $120°$, correct to **1** decimal place where appropriate. **[6]**