3 **(a)** Show that the equation $\frac{7\tan\theta}{\cos\theta} + 12 = 0$ can be expressed as

$$12\sin^2\theta - 7\sin\theta - 12 = 0.$$ [3]

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(b) Hence solve the equation $\frac{7\tan\theta}{\cos\theta} + 12 = 0$ for $0^\circ \leqslant \theta \leqslant 360^\circ$. [3]

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