5 **(a)** Show that the equation

$$4\sin x + \frac{5}{\tan x} + \frac{2}{\sin x} = 0$$

may be expressed in the form $a\cos^2 x + b\cos x + c = 0$, where a, b and c are integers to be found. [3]

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(b) Hence solve the equation $4\sin x + \frac{5}{\tan x} + \frac{2}{\sin x} = 0$ for $0° \leqslant x \leqslant 360°$. [3]

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