

**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  $0^\circ \leq x \leq 360^\circ$ . [3]

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